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THE AUTOMOBILE MAGAZINE

SEPTEMBER, 1901

"Four months hence."

95 LIBERTY ST., NEW YORK, U.S.A.

VOLUME III NUMBER 9

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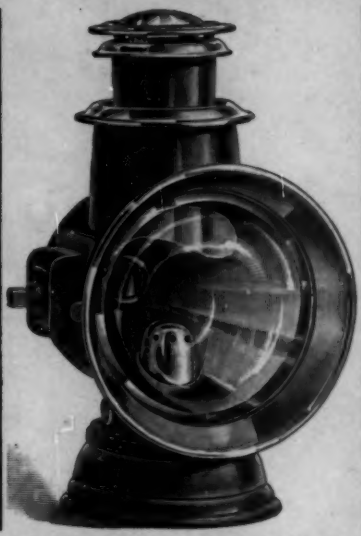

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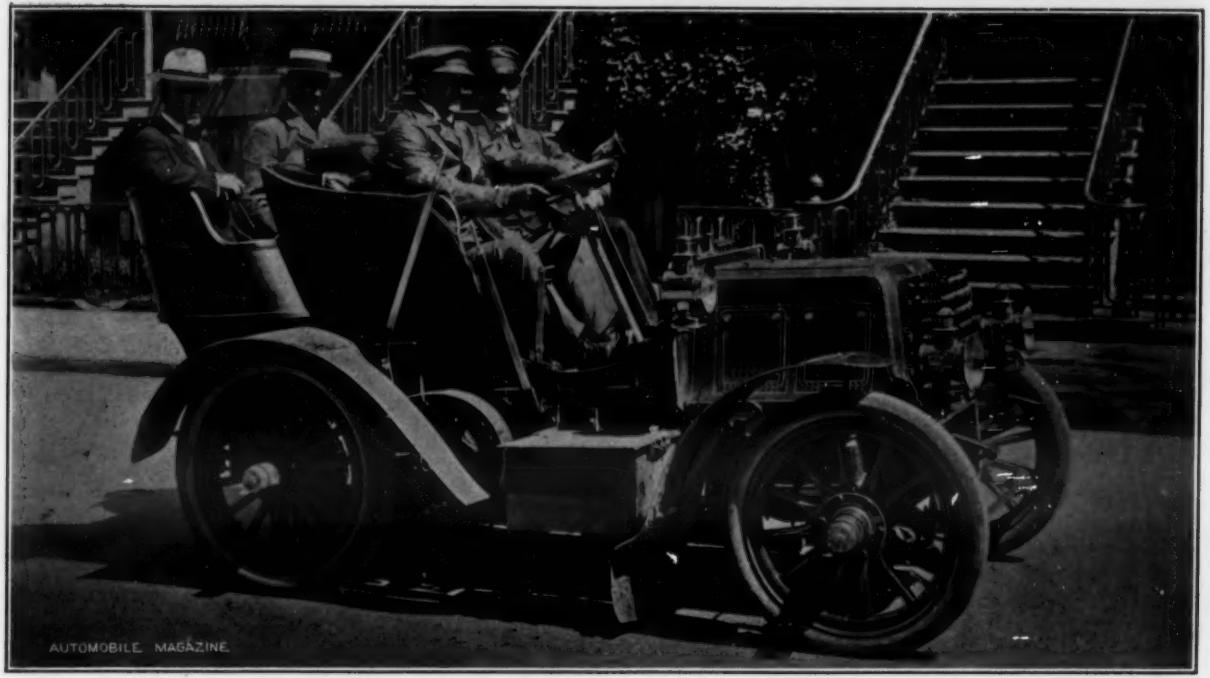


Harlan W. Whipple's 16 Horse-Power Napier. (Page 785)

THE AUTOMOBILE MAGAZINE

VOL. III SEPTEMBER, 1901 No. 9

Madame Lockert's Tour

AUTOMOBILING in France is engaged in by women in a much more free and off-hand way than has so far been the case in America, and the subjoined letter to the AUTOMOBILE MAGAZINE from Madame Juliette Lockert, that celebrated Parisian enthusiast, shows how conversant with the subject she is and it also shows that she is not afraid of the terrors of touring in a horseless vehicle. The letter relates to the tourist run starting from Paris and continuing through Germany to Berlin, the machine used being an 8 horse-power gasoline victoria, called the Richard IV. and displayed in the accompanying picture. To those reading the subjoined narrative it would be superfluous to comment upon the superior quality of intelligence and courage with which the correspondent is so unusually equipped, as manifested by the brave run she so nearly accomplished in the face of strenuous difficulties and lack of requisite assistance at the stages. Madame Lockert left Paris June 22 and the coach being somewhat heavy for the motor power, as she thought, she went slowly, and was thus permitted to admire the scenery. Her letter continues:

The weather was exceedingly fine. One of my daughters was seated beside the chauffeur and the other by my side in the victoria; just after passing the control we had the misfortune to sustain two punctures successively and were then well under way again when, 47 kilometers (29½ miles) from Paris, at Chapelle sŭr Crécy, we found ourselves approaching a most difficult grade (probably 10 %). As I have already stated in the beginning, our carriage was overweighted, the burden being about 1,600 kilos; nevertheless our brave 8-horse machine started out courageously, but half-way up the declivity it stops; the

chauffeur applies the brake, but it takes no effect on the dry, solidified soil, and behold our Richard IV. backing down toward Paris in spite of our efforts. Brière de chez Cottereau was just coming up behind us but turned quickly aside into a cross road, and we were continuing to slide downward unchecked when, happily, a wall rising at the left, our chauffeur tacked towards it abruptly, and we became wedged against it. We alighted, looked about and found the brake bent back. Total, one hour and a half's work in the blazing sun for our chauffeur and the same time of delay for us. Moreover, in this inhospitable country, I was refused a glass of water for my chauffeur, being told there was none in the village.

Annoyed at this delay, but not discouraged, I resumed my course and at Chauffry we breakfasted, 68 kilometers (42¼ miles) from Paris, during which time they repaired the clutch and, save a few pneumatic accidents, our trip was very uneventful as far as Reims. At this place I cannot recommend their great Commerce hotel, for they fleece the unfortunate chauffeurs. On Sunday, the 23d, having admired the wonderful cathedral at Reims, we continued our route and after a monotonous stretch, as much through the dusty country as through Ardennes, we arrived within 4 kilometers (2½ miles) of Longwy, where our carbureter saw fit to break in two. We were far from any village but, fortunately, a gentleman happened along at the moment in a small DeDion motor. This gentleman, who was from those parts, took my chauffeur with him to the smithy and the necessary repairs cost us two hours and a half more: finally, on departing, we were again punctured and lost another half-hour ; and so we were the last to arrive at Longwy, if you please ; but gaining Longwy heights we saw spread beneath us a magnificent panoramic scene. At the left Longwy-Bas rises in terraces like an amphitheatre, while at the right forests of pine and other growths descend by a gentle declivity towards the basin of a large valley ; the decline is rough but extremely picturesque and our brave 8-horser rolls rapidly and smoothly along, while the report of a cannon announces our arrival and four rifle shots the number of voyagers in the vehicle.

At Montmedy we were the recipients of a bouquet and many good wishes ; at Longwy much enthusiasm, champagne and a delicious collation awaited us ; our carriage with its unusual occupants, a woman and two children, accompanied only by a chauffeur, excited much admiration and cries of "bravo ladies, courage ladies, *bon voyage, mesdames*," began to greet our ears.

From Longwy to Luxembourg the landscape is possibly some-

what unchanging, but the good Luxembourgites extended us such a cordial reception, consisting of floral gifts tied with tri-colored ribbons, accompanied by enthusiastic vivas, that the time was only too short in which to sufficiently thank those who thus cheered us. Some punctures prevented us from a timely arrival at the Luxembourg control, more especially as the Richard house having neglected to send a mechanic to any of the stages, our chauffeur was obliged, unaided, to repair, lubricate and clean the motor, which prevented him from retiring before 1 a. m. in order to be in readiness for departure at 5:30 Mon-

Madame Lockert in Richard IV.

day, the morning of our arrival at Coblence. There the run was extremely interesting. For 50 kilometers (31 miles) we bordered the banks of the Moselle followed by enthusiastic acclamations. At the left were huge masses of rocks, some of which rose to a height of 160 meters. In every depression might be seen grape-vines, planted almost vertically, around which the soil was held in place by rock-fragments. From this locality comes the famous Moselle wine so universally renowned. At the right flowed the river Moselle, and on the opposite side of the stream rose similar rocky sides. The Moselle is so clear that the sandy bottom is distinctly visible. The road was very even and we

made good speed. On the way we met the chauffeur Kolb-Bernard whose carriage was broken.

Having extended him some assistance we resumed our course admiring the landscape as we traveled.

Sometimes the Moselle widened out in the form of a lake, the mountains seeming to hem in this lake while the speeding carriage appeared ever on the point of having its way barred just as a rocky defile opened a pathway for it, and after these abrupt turns a straight route followed, as the Moselle returning to its normal placidity flowed gently at our feet. We were obliged to cross this river in a ferry-boat which resulted in a bit of amusement, for once on terra-firma, our motor bravely climbed the short steep to regain the route, while many of our competitors were forced to have recourse to horses to do this.

Within 20 kilometers (12½ miles) of Coblence we gave some of our spirit to a competitor and 10 kilometers further on, our carbureter commencing to leak a little, we ourselves were in need, and as the Baroness de Zuylen's carriage, which had received a severe battering, came along just then we were enabled to borrow from her but only sufficient to proceed some kilometers, for our carbureter was leaking worse and worse.

At 6 kilometers (3¾ miles) from Coblence another delay, still from lack of spirit. I went on ahead and met an amiable German from Güls, Doctor Kaeufer, who very graciously went in search of some spirit for which he refused recompense. At length we again moved on and traversed 500 meters, for our carbureter, only halt repaired the previous evening, again broke. Dr. Kaeufer, who was following us with his Benz, then invited me to accompany him in his carriage as far as Coblence, to find some repairer or mechanic of the Richard firm. Finding none, I returned with the Doctor and arranged for accommodating the motor in the court-yard of an inn at Mozelweiss. After dining I returned to Coblence and saw Mr. Richard, who, not having brought any workmen with him, recommended me to do the best possible, but said he could not give me any aid. No longer able to rely upon anyone for help I returned to Mozelweiss at midnight.

There I found my chauffeur, who slept with his fists clenched, and I, with my daughters, rested until 6 in the morning, when I took the necessary steps towards having the motor repaired by some German workman, and at 5 in the evening we were enabled to go forward. We followed the banks of the Rhine where the scenery is very fine ; it rolls grandly along dotted with little isles upon which ruins of

immense chateaus still give semblance to cleaving its banks. Less vineyards are here than at Moselle, but a greater sweep of horizon and broad fields whose rich crops unfold beneath our feet.

The carriage moved along satisfactorily, some few pneumatic accidents alone retarding us. Wishing to profit by the remaining hours of daylight I decided about 9 that we would still proceed a matter of 15 kilometers (9⅓ miles), in order to reach Mayence. Having a short stretch of forest to cross we took the wrong road and found ourselves sliding about in a bog. Fortunately my eldest daughter spied a belated countryman in the forest, and, alighting, managed with much difficulty, since she does not speak German, to make out that our correct route was at a right angle to that which we had taken and that there were still 5 kilometers (3 miles) to traverse before reaching Mayence, and at this particular moment our expectation of arriving dwindled to a mere shadow ; but hearing an automobile approach we hastened to gain the right road, for it was evidently traveling in the same direction as ourselves ; then our chauffeur, finding there was nearly a four-hour journey ahead of us, asked the owner of the 24 horse-power machine, whom we had overtaken on the direct route, to convey me with my two little ones as far as Mayence, declaring he would pass the night there, and, at daylight, come on. But the gentleman, a Frenchman, refused this request, and we were forced to spend the night under the stars.

Not without trying to extricate ourselves from this trying situation, however, for hearing sounds of music from a merry-go-round (the air being *la fille de Mme. Angot*), I took my youngest daughter and walked 2 kilometers (1¼ miles) further in the forest, always expecting to reach the spot from whence the music proceeded. A mistaken idea, for the music ever receded as I advanced, and I learned, on arriving at Mayence the following day, that it was 11 kilometers (7 miles) distant, the sound having followed the stream to reach us. I was obliged to return to the carriage, and as, luckily, I had brought along some canned food I was thus equipped to offer my children and the chauffeur a repast consisting of three courses :

1st course : Cabbage on sweet wafers.

2d course : Truffled goose-liver on sweet wafers.

3d course : Sweet wafers, unaccompanied.

Giving the chauffeur a glass of rum, I raised the bonnet of the victoria and wrapped my girls in our cloaks, while the chauffeur rolled himself up in my dust-robe and the waterproof and retired on the

splash-board. I climbed into the carriage beside my children, after having lighted the lamps and placed one at the front and the other at the rear; then at midnight we went to sleep, or tried to. About an hour afterwards I heard my chauffeur shivering, so I made him rise, walk about, and drink some more rum, and then ordered him to take my place in the victoria, considering that the man who had worked so hard during all the day was entitled to a few hours warm sleep. At 4:30 our chauffeur rose, and as I fortunately had an alcohol lamp and bottle of water, by means of these a hot rum-toddy was concocted that refreshed us somewhat.

At 7 we started, passing Mayence, then Frankfort, but a series of punctures hindered us again. Finally we breakfasted at Dorfinghem, then flattened out a small bow-wow on the way, and, with many more punctures, finished our run among the Russian mountains that lead to Marsback, where we were able to rest over night, leaving Tuesday morning, stopping at Rasdorf to repair a puncture and breakfast, then on to Vacha 845 kilometers (526 miles) from Paris, where we arrived Thursday evening with a broken cylinder head, a single expert chauffeur, and no possibility of having the necessaries for repairs sent on from Paris. So, to our great regret, we were obliged to abandon our beautiful Richard IV, the photograph of which I send you—taken en-route—conveying it to Paris by rail and returning there disconsolate of heart.

However, we are counting confidently on the next tourist runs, and, certainly, my daughters and myself will be among the first to register for the start, and cannot too highly recommend this class of touring to all those who love to view the landscape. The route proved a perpetual enchantment without producing weariness; our carriage was so well balanced that we felt no jar.

It is the locomotion of the future, but, in order to accomplish long runs and arrive at a fixed time-limit, it is absolutely necessary to have the same conveniences that would be requisite for horses when used for traveling purposes, at the different stages along the route: grooms to curry, rub down and feed the creatures, etc., etc., while your driver rests; and it is this essential service which Mr. Richard neglected to furnish; neither did I spare him my reproaches for this oversight on returning to France. My motor was excellent, my carriage, though somewhat over-weighted, traveled well, but having a single chauffeur, Roche, to perform all duties was, indeed, insufficient.

I present the greetings and compliments of the owner, driver and chauffeur to the readers of the AUTOMOBILE MAGAZINE.

P. S.—Out of six vehicles which went out from Richard Brothers' establishment, four arrived in very good condition ; one was broken on the banks of the Moselle through the fault of the driver, and mine was unable to complete the run because I had but one man along, and these gentlemen had neglected to send a mechanic to the stages to attend to repairs.

Horns and Bells Encourage Speed

COUNT de Dion, in speaking of the speed question, says that as far back as 18 years ago he traveled at the rate of 35 miles an hour on a steam tricycle. At the same time he is quite with the Government on the question of regulating the speed of motor cars on the road. He thinks that any special form of signal, such as a horn or bell, should be done away with, and that the driver should be compelled to give notice of his approach just as would the driver of any other vehicle. The numbering of cars would open the door to practical jokes. It is all right in theory, but not in practice. If, however, it is decided to number cars, he thinks the speed should be increased to 25 miles an hour instead of 18. A motor car can pull up more quickly at a speed of 25 miles than a fast trotter at 13. Moreover, there are cases in which a fast pace is less dangerous than a slow one.

Another motorist, Mons. Houret, who managed the tourist class in the Paris-Berlin race, thinks that any car able to do over 18 miles an hour should be numbered, but none others, and he also holds the opinion that these cars should be allowed to travel fast. He is in favor of severe punishment in the shape of imprisonment, fines, etc., in the case of carelessness. Messrs. Charron and Girardot think that numbers would be ineffective, because it would be easy to carry a false one. In their opinion, a horn should not be allowed in a town ; in fact, the best way to suppress high speed would be to do away with horn and bell.

Automobiles in the Glasgow International Exposition

By A. F. SINCLAIR

THE writer has had an opportunity since sending his last casual notes regarding the Albion Motor Car of inspecting it and of securing particulars of its construction. It is driven by a petrol, two-cylindered, horizontally-balanced motor, which develops 7

The Albion

brake horse-power when running at maximum speed. The ignition is electric, obtained from a magneto generator. The power is transmitted to the rear axle by means of a central driving chain, and by the introduction of a variable expansion gear it can be regulated from a snail pace to its greatest speed. It is fitted with two powerful brakes, acting independently, which are effective in controlling either forward or backward movements. It runs on wooden artillery pattern wheels, fitted with solid tires. Altogether, the car is strongly built and has the appearance of being intended for use.

The automobile exhibit expands. Lately its extent doubled, or

in other words the machines increased in number from three to six. Messrs. Stirling, of Hamilton, threw themselves into the breach, as it were, to justify the "international" portion of the show's title and exhibit in addition to two machines of their own build, a neat and serviceable looking Panhard. This machine is driven by a petrol motor of De Dion type of 4½ horse-power, which is provided with a governor, a rotary circulating pump, a radiator and electric ignition. By means of spur gearing three speeds—6, 12 and 18 miles and slow reverse are obtained. It is fitted with band and side lever tire brakes.

The Stirling

The wheels are wooden, of artillery pattern, with Dunlop motor pneumatic tires. Messrs. Stirling are said to be pushing the sale of this machine in preference to those of their own make, as they are unable to supply the latter in reasonable time, their orders in hand being sufficient to keep them employed well into September.

If the show goes on increasing in leaps and bounds as it has been doing recently, we shall have quite an extensive collection of automobiles by the time the automobile club trials and races come off early in September.

Hon. C. S. Rolls' Experience in the Paris-Berlin Race

HON. C. S. ROLLS, of England, who became conspicuous in automobile circles by making the best showing in the English 1,000-mile trial of 1900, had a succession of accidents while competing in the Paris-Berlin race that shows there are times when well made cars and expert drivers meet with commonplace vicissitudes. Mr. Rolls, by the subjoined account, taken from the *Motor Car Journal*, had accidents that are associated with novices as well as more experienced autoists, the chief trouble being the newness of the car :

"The Mors car which Mr. Rolls drove was only properly finished at 11 p. m. the night before the start, which barely gave him and his *fidus Achates*, Mr. Claud Crompton, who accompanied him as amateur mechanic, time to get up to Champigny and find their place at the point of departure. He and Mr. Crompton could scarcely tear themselves away to get an hour's sleep in a hay loft. Duly awakened at 3:15, they clambered down the ladder, mounted their car, moved into line, and awaited the start.

"Soon after leaving the first control, they struck some ideal strips of road and passed some five or six cars in the first few miles. Before very long, however, they heard a cylinder missing. Without slowing down, Mr. Crompton changed the coils, but to no effect. He then took out and replaced the *inflammateur* on the cylinder, a difficult feat *en plein vitesse*, and giving him, as he said, '700 shocks a minute to stimulate him.' Being still unable, however, to get the fourth cylinder to work they decided to continue on three to the next control. Two or three cars had meanwhile passed them, and when they reached Montmirail another 35 minutes was lost in the control while the Mors men took out the induction valve, sparking maker, carbureter, etc., only to find that an exhaust spring had jumped out. This was most annoying, as it was one of the first things Mr. Rolls had looked for, but the hook of the spring had become displaced in such a manner that the latter appeared to be perfectly in its place, and the valve seemed to be working up and down all right. This was rectified in one minute, and they proceeded on their way.

"From that time onwards, however, the car ran in a most won-

derful way, and caught up many others. No punctures occurred, though a number of times it was necessary to stop to extract nails felt in the tires whilst traveling. The exhaust spring also jumped out again twice. The car arrived at Aix-la-Chapelle in excellent time, and had done so well that it looked like securing a good position. On the following day, however, exceeding ill fortune awaited them. They encountered many miles of atrocious *pave*, and over this, being determined to save his car, Mr. Rolls drove very quietly, and allowed several slower ones to pass.

"In spite of this precaution, however, a grave state of things was discovered on entering Cologne. One of the iron brackets supporting the water tank, having a flaw at the bolt hole, broke off, and allowed the tank to drop on to the back axle, the effect being to batter a number of holes in the tank and loosen the seams. This, as Mr. Rolls says, was a heart-rending situation, as they had apparently got up to somewhere about seventh place, according to classification. He felt like giving up the race, as the tank seemed irreparable, but Crompton, resembling his father, Colonel Crompton, R. E., in knowing no difficulty, determined to make a shot at repairing. First of all, they took off the back of the car, opened up the manhole of the tank, and, with great difficulty, stopped up the holes with grease and canvas from the inside, by means of which they succeeded in getting the lower part of the tank to hold water with only a slight leaking.

"They then procured some strong iron wire and bound the tank up to bits of wood projecting from the frame and attached it as best they could, and after this made up their minds to crawl into Dusseldorf, the next control, where a Mors depôt was established. The men there, however, practically refused to help with the tank, saying that it was impossible to proceed, and recommending Messrs. Rolls and Crompton to relinquish the race and wait for a new tank from Paris. Rather than do this they plugged steadily along, frequently repairing the interior of the tank, and patching it up—an unpleasant job, for now and then it would suddenly begin to lose its water from the canvas and grease shifting inside. Crompton nobly plunged his hand each time into the nearly boiling water to fill up the holes with more grease, in the hope of saving enough water in the bottom of the tank to run them to the next control.

"When they had good surfaces they could go at full speed, but as practically the whole length of the route comprises a villainous road with frequent *caniveaux* and level crossings, they did not dare to

go beyond the third speed, and generally were on the second. They got to Hanover, of course, very late, and were much congratulated by their French friends who had seen their apparently hopeless breakdown at Cologne, and were much surprised at the arrival of the car. Having only 1¼ hour allowed for repairs at Hanover, nothing could be done but remake the wire attachment to the tank, which had now broken the second bracket, leaving all the strain on the wire. They took an extra hour out of their running time, and made a better job of the attachment than on the previous day, although the Mors men again discouraged them from attempting to run to Berlin with a large water-tank which leaked everywhere, and was only suspended by a few bits of wire attached to thin pieces of wood.

"On the final stage of the journey, besides starting very late, they had three punctures, and what with the ceaseless trouble caused by the water-tank and the dread of losing it over the rough surface, they were very thankful when Berlin was reached five hours after the first arrival. So tired were they that during the three following days they fell asleep at all times, whether at meals, in a cab, or at the opera, while Mr. Rolls developed a new-found propensity of talking in his sleep. When the car was in the Exhibition, the repairs due to the ingenuity of Mr. Crompton were the cause of no little curiosity, and the members of the Mors firm expressed their hearty thanks for the trouble and determination the two young Englishmen had displayed.

"Mr. Rolls considers that a race of this sort is almost entirely a matter of luck, given equal cars, Fournier having better luck in both his races than anybody else. He had a great advantage, moreover, in being an early starter, and so avoiding the blinding clouds of dust which other competitors in the rear had to face. Having got up from thirty-third to about seventh during the first half of the journey, Mr. Rolls was told that he must have been one of the first three but for the tank, as two or three competitors who were in front when the accident happened never got through at all. It was with no little surprise, however, that after having spent four hours stationary on the road, and run the 420 miles from Cologne to Berlin at half speed, Mr. Rolls learned after all that he was classed eighteenth out of 110 starters.

"The times indicate that over certain stretches of the road he maintained an average of about 63 miles an hour, and occasionally did the third fastest times between controls. Single kilometers, however, were clocked in 32 seconds, which is the test speed the Mors cars have to attain on the level before being passed by the makers."

Women in Paris-Berlin Race

ONE of the features of the great Paris-Berlin speed contest was the good showing so many women made in it. Some of these demonstrated skill and pluck which compares favorably with the records made by men, and their performances also prove that a racing machine is sufficiently tractable to be safely guided over 750 miles by feminine hands. Mme. du Gast was the heroine of the fast race, being the first competitor of her sex who ever entered in a contest of the kind. The Prince de Sagan traveled beside her in her blue car, called the Valkyrie, as her mechanician, but she alone drove throughout the journey. That she was by no means a tourist in disguise, but a racer in earnest, is shown by the place which she secured —nineteenth—and her time—21 hours. Her voyage was without incident, save for the inevitable punctures, and was rendered pleasant by demonstration along the route by the many who appreciated her performance. In the tourists' section there were whole parties of women and families of children. Unfortunately, the car driven by Mme. Lockert and her two daughters broke down hopelessly somewhere near Gotha, so that its three venturesome occupants had to relinquish their journey. But many other representatives of the fair sex successfully reached Berlin. One chauffeur traveled alone with his wife, who was often to be seen on the road actively assisting him to remedy one or other of those breakdowns which must happen in the best regulated motor cars. Another, who also was his own mechanician, used to be helped on similar occasions by his wife and their son, a boy of 10. Baron von Zuylen's party of six included women, while the Baroness traveled alone with her mechanician on the ill fated Snail, which was finally smashed by a careless servant, who was alone in the car at the time and escaped unhurt.

Automobiles for the Majority

WHILE we all admire the mechanism, power and capacity for speed possessed by the large machines, such as the Mors, Panhard, Napier and similar cars, they do not appeal to the average user nearly as much as the smaller machines. It is necessary that owners of these larger cars employ skilled mechanics to keep them in order, as engines of their power have entirely too many parts for the average user to look after carefufly, even if he is enough of a mechanic to do so. This places it on the par with the keeping of a hostler for your horses, and this is, of course, equally necessary where more than one is kept.

A man of moderate means wants a machine that he can look after himself, and if he is mechanically inclined the repairing may prove something of a relaxation from his regular business. If the machine does not require too numerous repairs the cost of operation will be moderate, and he has the satisfaction of knowing that it is not a source of expense, unless it is being used.

The majority of users then need a machine which may be compared to the ordinary family carriage horse, and while they admire the larger and more elaborate cars, it is something the same as the owner of the afore-mentioned staid family carriage horse admires the horse that can win the famous races.

The builders who turn out a machine best suited to the average user will find a constant increase in his market. And though these machines will be much lower in price, the maker will probably secure a larger net return than builders of the high-power machines.

One of the annoying features of automobiling with some machines is the constant loosening of the small bolts and parts, which in many cases could be avoided by careful designing. Any one who is familiar with machine designing in general, cannot help feeling that much of this work on automobiles is very crudely done. One new machine that we know of lost four screws out of the driving sprocket during a 25-mile run, and the remainder had to be tightened every few miles in order to get home. A little careful designing would obviate this entirely, and the lack of attention to these little details does much to discourage the use of machines generally.

Harlan W. Whipple's Napier and Other Machines

HARLAN W. WHIPPLE left the Waldorf-Astoria Thursday, August 1, at noon, for a trip over the road to Buffalo as laid out by the Five-Hundred-Mile Endurance Test Committee of the Automobile Club of America. He was in his "Green Dragon," a new 16 horse-power Napier machine. Martin A. Devitt, of the banking firm of Devitt, Tremble & Co., of Chicago, and W. J. Hitchcock, of Youngstown, Ohio, occupied the rear seat. Col. Caleb B. Wick, of Youngstown, had intended leaving New York with the party but circumstances prevented him doing so, but he joined them at Buffalo, whence the trip continued to Youngstown. Alongside of Mr. Whipple, who is at the wheel in the accompanying picture, is the owner's mechanic, who in addition to making the tour pleasant for all concerned by always having the vehicle shipshape, also relieved Mr. Whipple much of the time at the wheel during times when conversation with his guests was more interesting than steering, which state it is necessary to say mostly predominated. The object of the trip was to examine the course and check places and notes on the map as made by Walter H. Stearns, who had been employed by the committee to go over the route and record features and places of interest and importance on the road. Mr. Whipple took his time on the journey and made it a combined gratuitous tour for the club and one of recreation for himself.

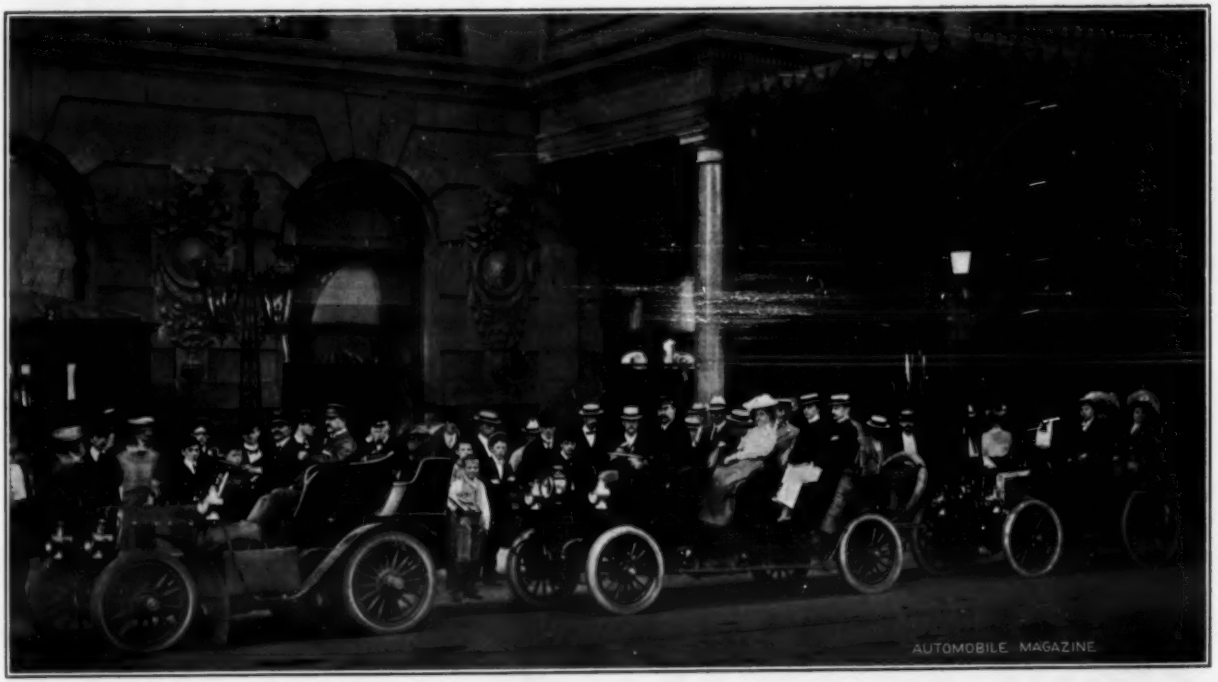
This Napier machine is the first one seen in America. In coloring it differs very much from the usual foreign-built automobiles. It is dark green with no brasswork at all outside of its lamps. Its levers and metal trimmings are nickel finished; but there is so little of this that the whole effect of the machine is quiet and subdued. One noticeable feature is its apparent chunkiness, it being a little shorter appearing than the French automobiles of that power. It really is not shorter, for its wheel-base is 6 feet 9 inches, but it merely looks so perhaps on account of its solid build and its short tonneau. The owner admits that he is a little disappointed regarding the foot space of the rear seats, it being too small for a long ride. However, he says this is a trivial matter, for more ample proportions can be put there at

any time. Mr. Whipple also thinks that the wheel-base is too short for the comfort of those riding behind, but this is so with almost every machine built with the same style of body. No more comfortable riding can be imagined than that which one gets on the main or front seat. All the little points mentioned by the owner as being a base for finding fault are, so he says, comparative trifles.

The car is driven by a four cylinder gasoline motor, the cylinders being 4-inch bore and 6-inch stroke. Vaporization is effected by a float feed vaporizer, similar in essentials to the DeDion type. A static spark ignites the gas, a plug of DeDion or similar pattern being employed, but the vibrator is on the coil, operated magnetically, and not on the motor and actuated by it, as on the DeDion and other motors of that type. The fly-wheel is 18 inches in diameter with a 4-inch face, its weight being about 250 pounds. A cone fly-wheel clutch, leather faced, drives the vehicle, the transmission being of the usual gear type, enclosed within a large aluminum case.

In a ride in this machine with the owner on Fifth Avenue the impression was received that even though nothing like speed could be tried, yet the vibration amounted to hardly anything. The lack of noise was a revelation and Mr. Whipple says that when going faster the noise is still less. This feature is in marked contrast with other foreign machines and it was quite a delightful sensation to ride along crowded Fifth Avenue in an automobile that made little more noise than the average electric cab. There are a number of American built high powered cars the vibration and noise of which are not noticeable when the vehicle is running at good speed, but few can show anything like the results and lack of noise when travelling slowly as Mr. Whipple's Napier.

Accompanying him to just outside the city limits were the well-known "Red Rover" the product of the Automobile Company of America and a handsome Panhard-Levassor machine now owned by Mr. Whipple and which has had quite an eventful career so far as ownership is concerned since it reached these shores several weeks previously. This automobile was imported by a Mr. Langeman and was seized by the Custom authorities for undervaluation. The machine figured in the newspapers for many days and finally it was sold to Winthrop E. Scarritt, who is on the 500-mile endurance contest committee, of the A. C. of A. Mr. Scarritt named it the "Red Devil" and turned it over to the Automobile Touring Company and with the "Red Rover" it did good service, it being very fast, although no



"Green Dragon." "Red Rover." "Red Devil."

reflection is meant here on the "Red Rover" for that is fast enough for practical purposes. The evening before Mr. Whipple started on his trip to Buffalo he bought this machine from Mr. Scarritt and it was fortunate he did for he met with an accident on his "Green Dragon" that resulted in this machine being sent back to the DeDion works for repairs. Mr. Whipple was bowling along Broadway near Tarrytown, on the day he started for Buffalo, when he took a rough spot in the road a little faster than usual and the rear spring gave way. He and his friends took the train back to the city and started the next day on the "Red Devil" for Buffalo, where they arrived in good shape. Mr. Whipple is loud in his praises of the varied performances which he put the "Red Devil" through on the 500-mile trip. It is not his intention to keep two such powerful cars as this one and his "Green Dragon" and he is yet undecided which will remain in his posession.

His Panhard car is an unusually attractive-looking machine, its predominating color being red. The panels are of ash finished in the natural color and they, combined with the other rich red finish and the usual amount of brasswork found on these machines, make a very striking appearing vehicle and one that from the point of looks alone could hardly fail to capture the gaze of the casual onlooker. The accompanying picture shows the three vehicles just before Mr. Whipple put his clutch on to lead the way on the first day. The occupants of the "Red Rover" were the driver, Mrs. Edmundson and Mr. Belden (both of Chicago) on the middle seat, and Mr. Edmundson, William B. Smith and the editor of this magazine on the rear seat. Louie J. Harris, the manager of the Automobile Touring Company, which runs the "Red Rover," drove Mr. Whipple's Panhard machine, some friends accompanying him. The vehicles continued in good shape until the upper part of Seventh Avenue was reached, when the "Red Rover" turned around and started back, leaving the "Red Devil" to accompany the "Green Dragon" a little further. Just as the "Red Rover" had turned on broad Seventh Avenue the tire of the right hind wheel burst with a report that caused people within 200 feet of it to look apprehensively as to what it was. The machine was immediately stopped near the curb and the driver and the assistant who occupied the rumble left their perches with a matter-of-fact, business-like air that showed they knew exactly what had happened. The driver nonchalantly remarked, "She's at last gone. I thought she would this morning." Off went the coats of both even before the

passengers had disembarked, the two men giving an excellent example of getting to work without unnecessary standing around or talking the thing over. The wheel was jacked up quickly, and as the passengers bade the men "Good-bye and good luck" it seemed, judging by the latter's actions, as though it would not be but a minute before the machine would be ready to run again.

The rubber parts of the "Red Rover" have been the stumbling block to the regular running of this popular vehicle. The driver told the writer that he would not have the slightest complaint or feeling

Louie J. Harris and Father on "Red Devil"

that any trip would not be successful were it not for the tires. On this particular morning, before the machine was taken out, the tire that burst was found to be cut near the rim, but it was thought it might last through the day. The immediate cause of the rubber giving way was the fact that the machine was turned quite speedily and the centrifugal force put the usual increased side strain on the outer hind wheel. The probabilities are that if the machine had been turned so that the strain were on the left side the tire would not have given way ;

or if the machine had been sent along without any turning at all the rubber might have lasted for many miles more, for it gave way just at the end of the half-circle turn when the radius had to be made a little smaller to get the machine straight again, thereby bringing an unusual extra strain on the outer wheel.

The "Red Rover" is almost a perfect riding machine so far as concerns the comfort of the passengers. Its long wheel base takes away much susceptibility to the jumping or throwing motion in taking any bumps or elevation on the road. The only detriment to pleasure riding on any part of it is the fact that on days when there is little air stirring, the heat from the motor under the rear seat is carried up and forward by the vortex of air made when the machine is moving so that those occupying the rear seat get a great deal of it around their necks and even on their faces. When the machine is not running but the motor is going this trouble is not noticed very much except by the occupant of the rumble, but when under headway the hot air comes up with a forward swoop that would make one almost think he were sitting with his back to a fair sized blast furnace. The attendant on being questioned what share this hot air gave him when the vehicle was running fast said that he did not notice it except during unusually hot weather but he naively remarked that he thought it was mostly because he was used to it.

The "Red Rover" has been making regular trips to the Oriental Hotel, Manhattan Beach, and generally with a full complement of passengers which includes one on the seat with the driver, and three on the middle and rear seats, making in all with one on the rumble nine persons. Its freedom from breakdowns except from tires is shown by the fact that up to the 15th of August it had made consecutively wenty-nine round trips without the slightest mishap.

Owners of all automobiles crossing from France to Germany during the Paris-Berlin race and the tour held just previous to it had to deposit 12 per cent. of the value with the authorities as a guarantee that the vehicle would be returned to France. The large sum of $265,000 was deposited in this way, the smallest declaration being for a motor cycle valued at $180 and the largest $8,000. The total value of the machines declared was over $2,250,000.

Boston Automobile Express Co.'s Vehicles

NOT six months have gone by since the electric automobile delivery wagons were taken off Boston streets by the company which first introduced them there, yet already a new company has started in successfully with an automobile delivery service, like the other in using electric automobiles, but different from it in the style of battery used and also in the system under which the work is performed. The first vehicles were those of the New England Electric Vehicle Transportation Company, now no longer in existence. They used the company's regular 44-cell cab battery and were leased to the firms using them in numbers to suit the amount of business done by each firm. The new vehicles are those of the Boston Automobile Express Company, they use the new MV exide battery of 40 cells, and instead of being leased to individual firms they are retained entirely in the control of the Automobile Express Company and its men, and are operated entirely by this company.

In fact, the new company has merely hit on the idea of applying the automobile to the uses of what has long been known as a parcel delivery system. It started with four large automobile vans and one small one. With these it contracted to do all the delivering of goods for half a dozen of the large retail stores of one kind or another, the goods ranging from carpets to dairy products, but it covered at first only certain sections of the city.

The system was a pretty one. Early every morning around to each subscribers' store came a big electric automobile, taking from each all the goods then ready to be delivered in the section for which the vehicle was bound. Then a swift run out of the shopping district brought the van to a shed or store used as a sub-station in the midst of the district to be covered, and here one or two horse-drawn wagons of small size were ready to sort over the load brought by the automobile, and to deliver it around the district, leaving the automobile to return to town for its second load. This was picked up from the entire number of subscribers, like the first, each subscriber being visited on each trip, the goods being collected without stopping to sort them over in the manner which caused delay when the various firms ran their own delivery wagons. The advantage of the swift automobiles over the horse system was shown at once in the fact that the automo-

bile company made four collections and deliveries each day where the firms with horse service never try to make more than two.

The districts first tried were Dorchester, south of the city, and Chelsea and East Boston on the north. Each was started with four deliveries a day. In addition, the smaller district of Winthrop, just beyond East Boston, was furnished with two deliveries a day, and Neponset, a little beyond Dorchester, had two. The system has been working well, and has been so operated that there has been very little annoyance from stalled vehicles.

Boston Auto-Express Vehicle

General Manager Knight Neftel, who instituted the delivery wagon service for the Vehicle Company in Boston, and has been doing the same for the Automobile Express Company, said the other day: "We shall extend the service from time to time as fast as we can get our vehicles from the Vehicle Equipment Company. We are using their large pedestal-construction vans, for which the normal load is 2,000 pounds and the speed 8 miles per hour. Thirty-nine miles has been made on a single charge of the battery, but our custom is to charge each battery at night and work it all day, with possibly a "lift" while it is loading or unloading goods. We are saving a great deal

of time for the firms we are now serving, for we often get the goods at the house almost as soon as the purchaser gets home from the shopping trip. They are not used to this, for in the way these firms have been delivering with horses the purchases were seldom delivered before the day after they were made. The only thing we do not undertake to deliver is perishable stuff that is sent C. O. D."

At present the company is using the old Edison building on West Canton Street for its central station. This was the first building ever used in Boston as a station for automobile cabs.

O. L. STEVENS.

Some English Road Racing Ideas

MUCH of the English press has drawn conclusions about the good or bad effects road racing has on the automobile industry, but it is easily noticed that most of the observations give the inference that road racing under proper supervision is beneficial.

Commenting on the subject, the *Manchester Guardian* truly remarks, "France has chosen to encourage the new industry of motor-car engineering by allowing self-propelled vehicles to run at high speeds on the public highways, whilst England has discouraged it, at first by subjecting motor-cars to regulations which were framed for the government of traction engines, and even now by limiting the paces of motor-cars to those of a fast-trotting cob. We have succeeded in keeping down the 'motor-car nuisance,' as we are pleased to call it; France has sacrificed something that we cherish, but has gained an undisputed pre-eminence in a craft which bids fair to become one of the most important and profitable branches of mechanical engineering."

"Facts like these," observes the *Globe*, in chronicling the result, "ought to make our local authorities reflect upon the harshness of the regulations affecting speed in this country, by which one of the most promising enterprises of the new century is being stifled."

"Assault" in an Automobile Accident

ONE of the latest phases of automobile accidents shows that the term "assault" may be used as a basis in an attempt for obtaining redress. Careless driving evidently is not strong enough to enlist public sympathy with the injured. Just what the occasion would be when assault could be charged in an accident happening in pleasure automobile driving is yet to be seen. Undoubtedly there are times when angry truck drivers show a spirit of genuine assault when they take delight in crowding each other to the curb or in purposely running the massive hubs of their wheels against the flanks and shoulders of the helpless and innocent horse,. bringing about injuries all the way from skin abrasions to absolute dislocations, sometimes maiming the animal forever. Assault in a case it was recently used in was very much out of place and it resulted in having the charge thrown out of court, even without the one complained of testifying.

Clarence Gray Dinsmore, chairman of the Committee on Foreign Relations of the Automobile Club of America, had an experience on Broadway recently while riding in his Panhard machine where at the worst a man was knocked down innocently. Henry De Witt Hamilton, a lawyer of this city, was the injured party, and whatever his motive was for charging assault in addition to careless driving, he found at the end that he had charged too much. The case was heard before Magistrate Olmsted, and when Mr. Dinsmore found that he was to be tried for assault he asked for delay until he could send for R. M. Sweesy, his lawyer. With Mr. Dinsmore in court were two friends, Gordon Welles and Proctor Smith, who occupied the rear seat when the accident occurred.

Mr. Hamilton acted as his own lawyer, and the following is his version of the accident: "I started to cross Broadway from a point near the southwest corner of Fulton Street. I was going diagonally across, and when near the middle of the street I turned to the left-about to retrace my steps. I had forgotten something. As I turned I saw an automobile approaching at what I considered a dangerous rate of speed. I jumped, and while still in the air the right forewheel struck me on both legs. I fell to the pavement."

On cross-examination, Mr. Hamilton admitted that the automobile did not run over him but struck him so that he was thrown to the pavement. Policeman William H. Robinson, who arrested the party, testified that he saw Mr. Hamilton turn in the middle of the street to retrace his steps just as the automobile approached him. Other questions brought out the fact that Mr. Hamilton turned suddenly and retraced his steps and that the automobile could not be stopped in time to prevent his leg being hit sufficiently hard to upset him.

Mr. Dinsmore and his friends were not called upon to testify, the magistrate dismissing the case saying, "In order to maintain a case of assault, criminal negligence must be shown. There is no testimony that the speed was greater than allowed by law, and the complainant admits he was not on a crosswalk but was pursuing a diagonal course when he turned suddenly and started back, thereby giving no time for any vehicle to change its course materially. No conviction on such a grave charge as assault could be obtained on such evidence."

New Locomobile Prices

THE Locomobile Company has advanced prices of its standard patterns, this being caused by many minor improvements being put on the machines and also by the great demand for the vehicles. Following is the present schedule:

Style No. 2	$850	Style No. 003	$1,100
Style No. 2½	900	Style No. 0003	1,100
Style No. 02	950	Style No. 5	1,200
Style No. 3	950	Style No. 05	1,400
Style No. 03	950		

This means that the purchaser of a Locomobile is now confronted with an advance of $100, $50, $100, $50, $50, $100 and $100 respectively in the order named, while for the last two on the list, 5 and 05, the prices are the same as they have always been. It has been intimated that not only will most of the makers of steam vehicles follow the example of the Locomobile people, and advance their prices, but the manufacturers of gasoline vehicles are also preparing to do the same thing in the very near future.

The Knickerbocker Car

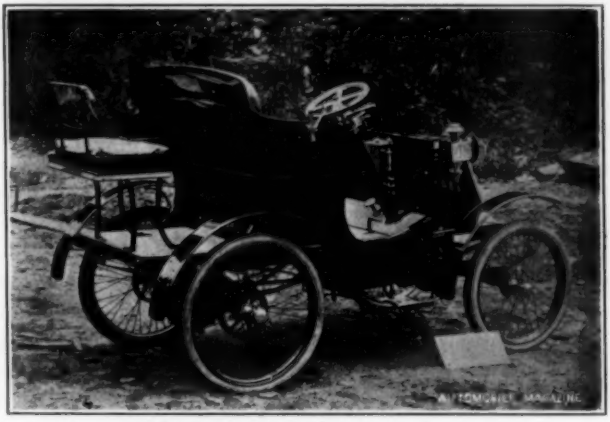
AMERICA has yet to manufacture largely a light weight gasoline automobile of the Darracq-Reynault type but the Ward Leonard Electric Company, of Bronxville, N. Y., are about ready to do so. Mr. Leonarda, fter whom the firm is named, is a member of the Technical Committee of the Automobile Club of America and has toured extensively in Europe where he devoted a year's time to the study of the automobile industry in England, France, Germany and Italy. He imported several automobiles made by the most successful French manufacturers and these have served for models of various points of design. His company claims that as a result of combining the best cars in Europe that one has been turned out which is the best of its class in the world to-day.

Members of his club who took part in the run last April to Jericho, L. I., will remember how Mr. Leonard on a 3½ horse-power "Century," which he had constructed, made the homeward run with a guest from Jericho to College Point ferry, a distance of 23 miles, in 55 minutes, against such men as E. T. Kimball, gasmobile; Samuel T. Davis, jr., locomobile; J. Herbert Carpenter, Winton; R. Esterbrook, Winton; George I. Scott, DeDion-Bouton, and others having higher powered machines. There was no race about it, but still on these occasions there is always some rivalry, and generally the one who arrives first is acknowledged to be the better one for that occasion.

The writer that day on the outward trip had the pleasure of riding with Cornelius J. Field on a 5 horse-power De Dion-Bouton, and for several miles kept close to Mr. Leonard's car, and, therefore, had an excellent opportunity to observe its workings. Mr. Leonard drove and it was noticed that he took advantage of all opportunities to show what his vehicle could do. On asking Mr. Field, who was previously familiar with Mr. Leonard's automobiling, if he always showed such a spirit of confidence in running a new automobile over new routes, around curves, etc., the answer was that so far as his experience with him was concerned it was so. This opinion, coming from one so well posted on such matters as Mr. Field, serves to strengthen further the opinion that Mr. Leonard is a careful, observ ing and daring automobile driver. Readers may judge for themselves

whether his product should be of the kind to fulfil descriptions and to stand the test of time. After exhaustive investigations regarding choosing a certain type to manufacture in this country, the result is that Mr. Leonard has selected the DeDion motor as a basis and has built up body, gears, transmission, etc., as he thinks best.

The accompanying picture shows a new car of his called the "Knickerbocker," it being equipped with a 5 horse-power DeDion motor. The company's first car was called the "Century Tourist." Mr. Leonard says the "Knickerbocker" is faster, larger, stronger, a little heavier and has many points of improvement in detail. It has



The "Knickerbocker" Car

inclined wheel steering which is irreversible. There are three forward speeds and one reverse, well controlled by one lever mounted on the steering column.

The engine, tanks, carbureter, etc. are placed up forward, where they are readily accessible and not subjected to dust and mud. With this location of the engine no vibration can be felt by the passengers. The power is transmitted to the back axle by means of a driving shaft running lengthwise under the car body, from the engine to a bevel pinion, which engages with a large bevel gear wheel upon the back axle. In this gear wheel is placed the differential. This entire back axle gear is enclosed in a metal case containing oil and is absolutely dust tight. In the driving shaft there are placed several universal joints so that the power is transmitted by what is really a

flexible shaft. There is also provision for end play in this shaft so that the shaft is flexible not only laterally but also longitudinally. This flexible transmission of the power from the engine to the back axle renders it possible to employ very flexible carriage springs and entirely eliminates the necessity of having an absolutely rigid frame. Extraordinary flexibility of the power transmission in the "Knickerbocker" results in a larger recovery of power at the rims of the driving wheels and greatly reduces the weight of the car, reduces the wear of machinery and enables the use of the most comfortable and easy springs. In the "Knickerbocker" the pneumatics are not relied upon as springs, but are merely used to secure the necessary tractive effort on the ground. It is claimed that the wear of the pneumatics is therefore reduced to a minimum.

The "Knickerbocker" has three principal forward speeds of 30, 16 and 8 miles per hour, respectively. In other words, the car can be driven at 30 miles per hour on a good level road. It can be driven at 16 miles per hour up an average hill, and it can be driven at 8 miles per hour up the steep hills. There is no hill met with in practice that the car will not readily climb.

In discussing speed, Mr. Leonard practically said: "If the weight and power are the same, a car with a first-class 3 speed gear will beat a car with a first-class 2 speed gear at least 20 miles in a run of say 100 miles, in a country having ordinary hills. Both cars must necessarily have the same ratio of gearing to climb the stiffest hills. If the 2 speed car is geared as high as the 3 speed car for the level, the result must be that it will have to take middle grades on its low gear at an absurdly low speed. If, on the other hand, it is geared so low as to take the middle grades on the high speed gear, this means a very great reduction of speed on the level and down grades, as compared with the 3 speed car. Probably the most important feature of a good motor car is the variable gear. This should be simple, positive, reliable, as noiseless as possible, and the gears should have a minimum of use, as any use of gears means loss of power and a certain amount of wear and tear. All speeds should be controlled by one lever on the steering column.

"In all ordinary practice the high speed gear is in use over 90 per cent. of the time the car is in use; therefore, it is extremely important that when the high speed gear is in use there should be the least wear, noise, and loss of power. In the "Knickerbocker" there is absolutely no wear, no noise, and no loss of power in the variable gear

under conditions of going on the level, up moderate grades and down hills. The explanation of this is, that under these conditions there is no gear whatsoever in use, the transmission of power being direct from the engine to the bevel gear on the back axle. This feature alone will cause a car equipped with it to beat 1 mile in 10 an otherwise similar car having a pair of gears in use in the variable gear box at high speed.

"The 'Knickerbocker' car is the only one I know of having the valuable features described above in its variable gear mechanism. It is largely on this account that this car equipped with a 3½ horse-power engine has repeatedly beaten, carrying the same number of passengers, all other makes having only 2 speeds, which had 5 horse-power, and even 9 horse-power engines upon them."

The water circulation of the "Knickerbocker" is of an original and improved form of thermo-siphon and no pump is required for circulating water. The water never boils in practice. With the customary form of pump used upon other cars, namely centrifugal pump, the the water does not circulate appreciably except when the engine is in rapid motion ; hence the water does not cool off rapidly when the car is stopped or is going at slow speed. But with the special "Knickerbocker thermo-siphon the circulation is entirely independent of the engine and hence every time the car is stopped or is going at slow speed the water quickly cools off instead of boiling.

The car has three dust-proof cases containing the essential machinery, namely the engine case, the variable gear case and the back axle case containing the bevel gear. Upon the dash board is a universal oiling tank by which the operator can force oil at will into the engine case, the variable gear case or the back axle case, while going. No oiling of these principal parts of the machinery is required before taking the car out and no cleaning up of chains, sprockets, gears, guides and valves, etc., is required after a run, with motor cars of the usual design.

The "Knickerbocker" when equipped with a 5 horse-power gas engine and having a spider seat so as to carry three passengers, weighs 700 pounds. This is only 140 pounds to a horse-power, which is remarkably low and explains the high speed and high efficiency of the car. The "Knickerbocker Tonneau" model, which will carry four passengers, weighs with its tanks full, about 800 pounds, so that it has about 160 pounds to be propelled per horse-power of engine.

The consumption of gasoline is about 1 pound of gasoline per

horse-power per hour upon any motor car having a good engine, A gallon of gasoline weighs 5½ pounds, hence one gallon of gasoline will drive the "Knickerbocker" about 33 miles on good roads. Gasoline costs less than half a cent to carry three passengers 1 mile. The tank of the "Knickerbocker" holds 5 gallons of gasoline, so that a run of over 150 miles can be made upon good roads without a stop.

One of the main requirements of the automobile-user—after, of course, the question of power and reliability—is that it shall be convenient—"handy" is the common word. This was emphasized recently when the strainer in the water tank of a steam machine became clogged and had to be cleaned. Instead of locating the strainer under the filling hole—or the hole over the strainer—the strainer was on one side of the carriage and filling hole on the other. This necessitated removing the whole top of the tank, when, if they had been located properly, it would only be necessary to reach your hand in the filling hole and clear it out. This would also enable you to see at once when the strainer was clogged, instead of taking out a dozen screws to get the top off, perhaps only to find the trouble elsewhere. Attention to these little points goes far toward making a carriage popular and this has quite an influence on the sale, as a satisfied customer sells other machines.

A Paris-Berlin Race Experience

By CHARLES JARROTT

CHARLES JARROTT, who finished eighth in the Paris-Berlin race, gives a most interesting personal experience of this contest in *Motor News*. It can readily be seen that the points mentioned by this new acquisition to the ranks of motor car racing are the results of observation that only a thoroughly practical man is capable of making. They cannot fail to appeal to all who have had even only a slight experience in speeding an automobile. The account follows.

My chances in the race were none of the brightest when I was informed on my visit to the works, about a week before the race, that my car was not finished and would not be ready before the following Saturday. This left me three days before the race, and in none too happy mood, for the possibilities in regard to the running of a new car are many and varied, especially when you are to take that new car over such a trying course and in such a hard race as the Paris-Berlin promised to be. The car I was driving was a 40 horse-power Panhard & Levassor carriage belonging to Mr. Harvey duCros, and ordered by him for the race.

The number of incidents crowded into the Paris-Berlin race were so many that one seems to have, after the event, only a vague idea as to what actually took place.

The start, with thousands of people, hundreds of motor cars, and the great excitement which prevailed everywhere, gave one some faint notion as to what it would mean over the whole course, and in this respect facts fully bore out the ideas I obtained even before I started.

The signal was given to go, and one had to drive full speed into a dense mass of people lining the road, who simply left a narrow lane for the car to pass. The possibility of one of the spectators in a forgetful moment stepping in front of the car seemed too awful, but the fact that the other competitors had to drive at a like speed, and that by slowing down one was losing ground, left no alternative but to go ahead as hard as possible.

The first portion of the road on the first day was very winding. There were very dangerous corners in some of the villages, and it seemed that the natives crowded out to the particular corners which

were the most dangerous, and invariably stood in the position, that if the cars failed to take the corner successfully, the spectators could hardly help being annihilated. Why they chose these particular points of danger I never could understand.

Through the controls, of course, we had to go slowly, and here again there seemed to be a strong idea in the minds of the spectators instead of waiting to see the cars coming through the towns slowly, they must get out on the road some considerable distance from the controls to see the cars arrive at racing speed. The result was that for some miles on each side of the main controls the roads were packed with people who invariably stood in the middle of the road until the car was nearly on them, and then they moved aside, just giving sufficient room for the car to pass.

I am quite sure that any accidents that took place to spectators were mainly owing to this reckless habit of theirs.

In regard to the speed, of course, on the wide open roads a terrific pace had to be maintained, but on some of the more "cornery" portions this was absolutely impossible, as, after all, corners at certain angles can only be taken at a certain speed on any type of car, and one had to be most careful when negotiating a corner not to exceed the maximum speed, as, of course, it meant the car leaving the road, and a bad smash resulted.

I myself had a rather funny experience on the first day of the race upon the stage from Paris to Aix-la-Chapelle. I had been delayed in the earlier portion of the race through a spring on my commutator breaking (the only mishap I had to the car the whole time), and looking round I found the 50 horse Napier close upon me. Not wishing to be passed by Mr. Edge I took a right angle corner exceedingly fast, and my mechanicien, Smits (who is Mr. Harvey du Cros' own driver) not hanging on to the car sufficiently tightly was thrown out. No serious damage was done, however, and he scrambled on to the car again and we only lost a few seconds, but our slight stoppage enabled me to see a big car drawn up to the side of the road, which had started in front of me and which had failed to take the corner, and consequently had been smashed to pieces.

In regard to the overtaking of a car in front, this was a most serious matter on every occasion. It meant that for some miles you had to drive in thick dust thrown up by the car in front, and for some distance it was quite impossible to see anything, and one had to take a rough idea as to the exact location of the road. Having got right

up behind the car in front the difficulty then was to make them hear to enable one to get by, and for this purpose it meant sometimes hanging close in behind at top speed before the occupants of the car in front would hear the hooter and make way to pass.

A very serious accident happened to one of the cars through the driver of the same running into the thick dust of the car just in front. He thought that the road was straight, instead of which it took a sharp turn to the left. The result was that he cleared the road, went into a ditch and upset the car into a field, without damaging himself, however, but with very serious injuries to his mechanicien.

All these possibilities had to be most carefully looked for in the race, and although great risks had to be taken, nevertheless it meant that if too great a risk were run that driver was bound to come to grief sooner or later.

In regard to my own impressions of the whole race, as you are possibly aware, it was the first time I had driven a big car in a motor race, although I previously participated in the Paris-Bordeaux on a motor tricycle, and I can only say that of all the sports I have ever taken part in motor racing is unquestionably the finest.

Of course the risks are very great owing to the very high speeds which are now attained, but with anyone willing to take those risks there can be no question in regard to the sport.

I finished up every day surprisingly fresh, although as far as appearance goes I am afraid there are very few of my friends who would have recognized me owing to the thick caking of dust on my face and clothes through passing cars in front.

The first day on the Paris to Aix-la-Chapelle started 13th and finished 10th. I had no trouble beyond the breaking of the commutator spring, which delayed me altogether about half an hour.

On the second day from Aix-la-Chapelle to Hanover I was exceedingly unlucky, being delayed about two hours in Cologne with tire troubles and three-quarters of an hour later with more tire troubles, which put me into the 25th position in the race at the finish of the day's run, and even to get into this position I had to pass a number of cars which had previously passed me on the road.

On the third day we started from Hanover on time calculation and in our proper positions on the two previous days' run. This meant that I started from Hanover about No. 22, and on the third day I think I did the best performance of the whole three, inasmuch

as I only took 6 seconds longer to cover the distance than Fournier, the winner.

From the 22d position I got through to the 9th position in the race, and then unfortunately burst my front cover. This delayed me, having to fit a new cover and tube, but after this I eventually got into 6th position, and here again I had the bad luck to puncture one of my back tires, and I was passed by two other competitors, and my final placing on the day was No. 8.

Bearing in mind the fact that with one exception all the cars in front of mine had greater horse-power than the car I myself was driving, my position in the race is explained to some small degree, and possibly with a little better luck with my tires I would have finished in an even better position, but, after all, one has to take the incidents in a race of this description as being part of the race itself, and although if one man should be more lucky than another, that has to be considered as merely the fortunes of war.

Of course our receptions through the villages and towns were of the most enthusiastic description, and our cars when waiting in the controls for the signal to start were loaded with flowers, and champagne and cigars were offered to the various competitors, and everything that could possibly be done was done to accord them a hearty welcome.

As a sporting event I never enjoyed anything better, and I for one sincerely hope that racing on the Continent is not a thing of the past. I cannot think that it is so, as I feel confident if France drops motor racing that Germany will take it up, as the enthusiasm of the Germans was unbounded.

We recently had the pleasure of meeting Mr. Fletcher Barrows, of Boston, who recently ran on an automobile from Providence to his city in two hours. He brought his machine to the DeDion-Bouton factory to have a reverse fitted and drove it to Boston on completing the operation. The carriage is a five horse-power DeDion New York Motorette with light yellow running gear and upholstered in pig-skin. This combination together with a pair of Dietz polished brass lamps makes a striking but neat appearance.

Chicago A. C. Loses its President

ARTHUR J. EDDY, who is quite well known by some of the more prominent New York automobilists, has resigned from the Presidency of the Chicago Automobile Club. His reason is that he found his ideas of automobile club management were quite different from those of certain members and that on account of not caring to do certain things that were expected of him he resigned both as president and also as a member. Mr. Eddy has been such a unique figure in automobiling that this move of his has interested many and as his chief complaint relates to a matter that is very important to the many automobile clubs and also to the trade, a special effort has been made to lay before our readers the facts.

In explaining his resignation more fully Mr. Eddy said that the trouble seemed to be over the comparative lack of interest he showed in club runs. He continued with, "I can only meet that complaint by saying candidly that I do not care to attend automobile club runs. From an automobiling standpoint, they are not conducive to good sport. There can be but one kind of club run which will be of value. That is a rendezvous affair in which the participants are notified that the club will meet at a certain point for luncheon, or dinner, as the case may be, or for some other similar reason; the members go to the meeting place to suit their convenience and desires. Such a run may be made a pleasant affair, but relative to this matter of parading an amateur body of automobilists along country roads so that all but the leader get the dust, so that all teams which are met are frightened, so that vehicles of different speed capacities must be kept under constant manipulation to preserve the line; such a run can do no good except as an advertising medium for the trade. Personally, I do not care to make a 'sandwich man' of myself. So, you see that believing in an automobile club as an institution whose chief object is not club runs, but whose purpose should, instead, be that of promoting, where possible, amateur sport and furnishing pleasure to suit the varied and individual taste of its members, I could not take it upon myself to officiate at all the functions of that club unless I made it my

business to do so. I am not in the presidential business when such requirements are exacted."

Mr. Eddy's words would imply that the runs of the Chicago Automobile Club consisted mostly of parading around the streets of the city for the purpose of showing machines in action, and that the custom of having some objective point twenty or thirty miles away with the accompanying agreeable lunch and sociability such as is found on most of the runs of the Automobile Club of America is unheard of in Chicago. If his description of the Chicago club's runs is correct few can blame Mr. Eddy for resigning the unpleasant position of president if it were expected that he would head the procession on every occasion. The chief attraction of the runs of the Automobile Club of America is the sociability, members thereby having an object to congregate. If the runs consisted merely of parading up and down New York avenues like a trade procession their popularity would not continue.

Judging by what has been developed in a number of automobile clubs this summer, it must be admitted that some are predominated by the trade influence. One feature of the Automobile Club of America is that although this influence is strong yet it does not desire to predominate in its management. It is always willing to suggest or advise and in the main its ideas generally carry the day, but the active management of the organization is in charge of men removed from the trade.

One reason why the trade is such an important factor in the Automobile Club of America without its showing unpleasantly so is that its representatives are among some of the prominent club members and are altogether a class of men that would be acceptable whether rigged for an automobile race or for the drawing room. It is a peculiar combination that is not met with except in very large cities.

Mr. Eddy became favorably known among the members of the Automobile Club of America by delivering a very clever speech at the banquet held a year ago to the exhibitors in the first Automobile Show at Madison Square Garden. In this speech he told how he as a practical driver had had the pleasing experience of getting down underneath a gasoline vehicle with his face turned toward heaven trying to find something that would not go. He also said that when in a steam vehicle he had watched the mirror with all the vanity of a woman, and lastly, although by no means least, he had experienced the sensation when in an electric vehicle of gradually slowing down

until, like grandfather's clock, it stopped—with no charging station nearer than the village saloon. Taken altogether, his speech proved that he was familiar with details of running electric, steam and gasoline vehicles, and the ludicrous tinge he gave to his remarks served all the more to emphasize his knowledge of the subject.

Half-Curtained DeDion-Bouton 5 Horse-Power Rockaway

Remington Company's Generous Offer

REMINGTON Automobile and Motor Company are now located at Utica, N. Y,, where they have excellent facilities and are driven with orders. They say : "We are repeatedly asked if we are going to take part in the coming long distance automobile test or endurance run. We are entirely too busy manufacturing motors and complete vehicles to fill our orders, to permit us to take any of our production for this endurance test, though we desire to assist to make the same a success in so far as we can, and as Utica will be one of the principal stopping places, we would like it known to the trade that our entire plant will be placed at the disposal of any contestant who finds himself in trouble upon his arrival in Utica."

The Bown Tire Valve

THE Bown Tire Valve Company, Ltd., 92 South Jefferson St., Battle Creek, Mich., has just produced an automobile tire valve, using the same mechanical principles that are employed in the Bown Automatic Tire Valve. This company has been organized with a view of introducing the valves made under the Bown patents. The principles under which these patents were obtained is that of using a small rubber ball for a plunger, and utilizing the air pressure within the tire to force the rubber ball to its seat, thus retaining the air when the pressure from the pump is released.

This is the second season in which the Bown Valves, using this little rubber ball, instead of the complicated mechanism usually found in pneumatic tire valves, have been used. This company now manufactures valves for four purposes, namely: The plain valve, a valve with a stem, a shoe valve, and an automobile valve. The claims of superiority which the manufacturers of these valves put forth are distinct and important. The first is that it is extremely easy to pump. Owing to the lack of mechanical resistance in the plunger against the incoming air pressure, and the ample room provided for the air to pass through the tube, this result is obtained. Almost any woman or child can inflate a tire with but a few strokes of the pump.

Bown Tire Valve

The lack of mechanical complications in this plunger leaves nothing to get out of order. The plunger to the ordinary valve consists of six or seven parts, while this has but one. Another feature which will be appreciated by the owner of a wheel on which this valve is placed, is the fact that the rubber ball or plunger never sticks. The reason for this is apparent. A very little air escapes around the rubber ball. As soon as the cap is screwed on, this leakage releases the ball and allows it to roll around freely in the tube. When the cap is removed the pressure from within the tire forces the ball immediately to its seat again.

The company has taken especial interest to test the working qualities of this valve during the last two years and to learn of all the objections others could suggest. Up to the present time no real

objections present themselves. Some have said that the cap should have a projection for releasing the plunger, but as the plunger never sticks, there is really no occasion for it. Others have given their opinion that it would be better to screw the cap on the outside of the tube rather than on the inside, but the washer lasts as long when placed between the cap and the tube, as when put in the top of the cap, and an advantage is gained by beveling the top of the tube in slightly, thus forcing the washer in towards the center, making the connection perfectly air tight. Others think there should be some means of getting inside the valve to make any repairs necessary on the plunger, but that seems unnecessary inasmuch as there is nothing to get out of order in this simple rubber ball. And should the rubber ball by any accident get stuck inside the tube, it can easily be released by inserting a needle.

Besides all these points mentioned, the mechanical simplicity of this valve makes it possible for the manufacturers to offer it at a lower price than can possibly be duplicated by the complicated valves now in use.

Chauffeurs vs. Coachmen

THE difference between the hired automobile driver and the horse driver in so far as the former is generally a better type of man is well described by John R. Spears who, in a recent article in the New York *World* concerning automobiling at Newport, made the following truthful observations :

"A word should be said here of the hired chauffeur—the young man who drives the machine for pay where the owner is incapable or not inclined to hold the tiller. To compare this young man with the society coachman would be a mistake.

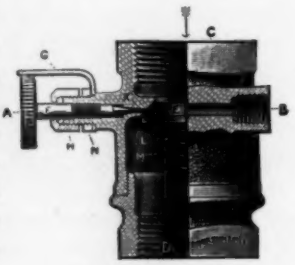
"Of all beings seen in the cottage district none is quite so repulsive as the average coachman, with a poodle-dog face and his immobile-faced side partner, the tiger. In comparison with them even the imbecile society youths show almost human intelligence, and in that fact is found, very likely, the reason for their existence.

"But after looking at the chauffeurs—the men who are hired to drive automobiles—they are found to be bright, active, self-possessed, intelligent ; they show, in short, the difference between a locomotive engineer and a horse jockey."

Lunkenheimer Generator Valves

GENERATION of the gas is all-important on the gasoline motor, and reliability in this particular does much to make the engine itself satisfactory. The generator or mixing valves shown take the place of the carbureter and are said to be extremely efficient substitutes in every way. They have few parts and are simple in operation.

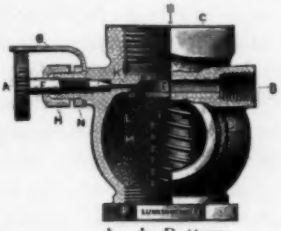
Referring to the sectional views it will be seen that the valve disc (*E*) is held against its seat by a light spring (*M*). The seat of this valve is wide, and the port opening slightly smaller in diameter than the pipe connections. The body of the valve (*L*) below the valve disc is of full area. At the side of the valve body is a gasoline inlet (*B*) tapped for ¼" pipe thread. From the side gasoline inlet (*B*) a passageway of ample area leads around and through the valve body and is in communication with the main valve seat. The opening of this passageway (*K*) into the valve seat is controlled by a small needle valve (*F*), which has an indicator arm (*G*) in connection therewith, and the wheel handle (*A*) on the end of the valve stem can be engraved to show different degrees of opening. The valve stem (*F*) has a large size stuffing box (*H*) so as to enable it to be well packed to prevent leakage of gasoline.



Vertical Pattern.

The operation of the generator valves is as follows: When the engine draws in the charge, the vacuum allows the pressure of the atmosphere to act upon the disc (*E*) and open same; at the same time the gasoline inlet (*K*) is uncovered and the required amount of gasoline is injected, thus forming the charge. The passageway from the gasoline inlet (*B*) to the gasoline outlet (*K*) is so arranged that the end of the regulating valve in the latter is as close to the seat (*E*) as possible, and has very little clearance. The result of this is, that gasoline is injected in the form of a spray, thus vaporizing thoroughly with the air admitted through the opening (*C*). On the return stroke of the engine, as the charge is compressed, the internal pressure, as-

sisted by spring (*M*), closes the main valve disc (*E*) very quickly, which, in turn, closes the opening of the gasoline inlet (*K*) and further injection of gasoline is prevented. The small needle valve (*F*) that controls the flow of the gasoline to gasoline inlet (*K*) has a long taper bearing, and the stem threads are of fine pitch, thus very close adjustment can be secured, and the amount of gasoline injected can be regulated to a nicety. As the wheel handle (*A*) can be engraved with notches to show the different degrees of opening, it requires very little instruction to enable an inexperienced operator to properly manipulate the valve. The port opening in the main valve disc (*E*) is always one size smaller than the pipe connection—that is, for instance, a 1¼″ valve has 1″ opening through the seat. The result of choking the port opening is to cause the valve to have greater lift when opening, due to the increased draught of air through the same.



Angle Pattern

Owing to the construction of the Lunkenheimer Generator Valve, no gasoline is spilled, nor is it possible to accumulate in the valve body and cause the charge to become too rich, which would interfere with the working of the engine. Any excessive amount of gasoline that may flow into the valve on account of an obstruction between the disc (*E*) and seat would at once drain into the engine pipe and not accumulate.

This valve is not intended to take the place of the regular inlet valve on an engine of the 4-cycle type. On engines of the 2-cycle type it takes the place of the usual check valve. It should always be placed as near the cylinder as possible.

It is made by the Lunkenheimer Company, Cincinnati, O.

The E. R. Thomas Motor Company, of Buffalo, N. Y., displayed a stroke of business tact during the week of the L. A. W. in Buffalo. Fitting up a lecture room they gave instructions and demonstrations of the use and abuse of air cooled motors and showed how to handle, care for and repair motor bicycles. This is an excellent way to make people familiar with various machines and one that can be followed to advantage in many cases.

Notes of the Pan-American

THE showing made by automobile manufacturers at the Pan American Exposition is thoroughly representative and therefore creditable. The exhibit includes all possible types of carriages from runabouts to omnibuses and heavy trucks. By far the largest exhibit is that of the Electric Vehicle Company, this company showing about 30 carriages. In order to increase their space a second floor has been erected directly above the ground floor, practically doubling the space. Woods Motor Vehicle Company has also a considerable number of electric carriages on show ; among them are runabouts, electric cabs, dos-a-dos, etc.

Among gasoline carriage builders were noticed DeDion-Bouton Motorette Company of Brooklyn, Haynes-Apperson Company of Kokomo, Ind., Automobile Company of America, etc. The first named company's exhibit consists of their well known New York and Brooklyn types of motorettes, bicycles and tricycles, also a doctor's coupe. They had also the first of a new style of carriage which is to be known as the Rockaway. This is a very neat looking rig and was the center of much attraction. Haynes-Apperson showed two of their well known carriages, similar in construction to that which won the blue ribbon in the 100 mile Endurance Test, held under the auspices of the Long Island Automobile Club last April. The Automobile Company of America have two of their regular two-passenger vehicles and a delivery wagon. Both pleasure carriages are finished in dark red and have wing mud guards.

The steam carrriage is very well represented. The Locomobile Company of America has considerable space and shows a large variety of styles of its well known machine. Grout Brothers of Orange, Mass., also have an interesting display of wagons. Conrad Motor Carriage Company, of Buffalo, displays four carriages. The Kidder Motor Vehicle Company, of New Haven, Conn., has a very attractive exhibit, showing a machine with the body removed. The arrangement of their driving mechanism is generally admired.

While the display made by the manufacturers was a creditable one, it must be said that the seriousness manifested by visitors was exceedingly small. Practically all those in charge of the exhibits

report the show anything but a success from a commercial point of view. Like all other exhibitions of similar kind most of those who passed through the various buildings were on their vacations and came to see out of mere curiosity rather than with any intention to purchase. Then, again, the illuminations are the great feature of the Exposition, and it is next to impossible to keep visitors inside the various buildings after 6 p. m. Hence after that hour most of those in charge of exhibits shut up shop.

The automobile exhibit has brought out nothing that can be called really new. In almost every instance the carriages are simply duplicates of vehicles regularly turned out by the respective companies.

Buffalo itself ought to be a paradise for the automobilist. It has 250 miles of asphalt pavement and is unusually free from hills. If there is a city in the world where the automobile ought to be popular it is Buffalo, but the city authorities are very severe so far as concerns running vehicles fast on the streets. The devotee of the horseless carriage is watched pretty closely, and it is very rare indeed that a chauffeur can drive his machine at a greater speed than eight miles per hour without being in some way made to suffer for it. When one has such fine pavements the temptation to scorch is very great.

That automobile manufacturers have done all that could be expected of them at the Pan-American is self evident. It is true that the number of direct sales have been exceedingly small on the whole, yet one can never tell how much may have been accomplished in an indirect way. One drawback is the fact that no arrangements have been made whereby machines could be seen in motion. Argue as we will the sight of an automobile running arouses interest and holds the attention. If it had been possible to have machines upon some sort of a track, the automobile would have made a deeper impression at Buffalo.

The DeDion representative, Mr. Bramwell, very kindly took the writer for a trip to Niagara and an interesting run it proved to be. Starting from the Iroquois we drove up to Delaware Avenue, the finest residential street in Buffalo and one that is splendidly paved with asphalt for about thirteen miles. The tendency to speed is strong, but the eight-mile ordinance and the watchful minions of the law are stronger, so we kept within the limit. Past the Government building on the eastern side of the Pan-American and we were on the way to Tonawanda. Here we stopped at the Sheldon Hotel and met

Mr. Cobb, the genial proprietor. He is paying special attention to automobilists and will soon be in a position to supply gasoline to those who need it.

From here it is a rough country road to La Salle—about 1½ miles—but as it parallels the Niagara River it is rather pretty. Turning left from La Salle to Niagara is asphalt again, and this takes one past the famous power plant of the Niagara Falls Power Company. On the return trip we stopped here and found eight of the ten turbines in operation. As they are 5,000 horse power each, the capacity of the plant at present is 50,000 horse power. There is an admission fee of 25 cents charged here, or only 10 cents if you are content with a view from the gallery. The receipts are turned over to some charity and the fee probably keeps out crowds of exhibition visitors who would crowd the station out of idle curiosity.

Lunching at the International, we drove across the new arch bridge after paying 15 cents a head for each occupant of the machine. I have been wondering whether to call this toll or import duty. We were pleased to note the absence of restriction to automobiles in the parks on both sides of the river. The cabmen in Victoria Park, however, did not take as kindly to the lack of rules as we did and greeted us with many remarks which were not calculated to soothe one's temper. Still, on the whole, they were laughable, and as we were not molested by the "bobbies" we left in good humor.

The run home was without incident and a total of 65 miles indicated that our ride was much longer than the direct route to the Falls and back.

In this connection it seems appropriate to mention a run that Mr. Bramwell made in this same machine—a New York 3½ horsepower motorette. He carried a passenger 136 miles on asphalt streets to be sure, but in spite of the stops and grades made 136 miles on 4 gallons of gasoline—a splendid record. J. J. S.

Practical Demonstration in England of Automobile Control

MR. J. F. SYMONDS, County Councillor of Herefordshire, England, writes to the AUTOMOBILE MAGAZINE concerning a demonstration of controlling automobiles made before County Councillors. By this letter it is seen that he was the guest of Mr. Henry Edmunds, of Dartmouth, a member of the Automobile Club of Great Britain. Mr. Edmunds took his guests out in his Daimler. Mr. Symonds' letter follows:

I was one of the representatives of the County Councils who was fortunate enough to receive a smart invitation card from the chairman, vice-chairman and committee of the "Automobile Club of Great Britain and Ireland," to accept a seat on a motor vehicle for a drive from the Automobile Club in Whitehall Court, and luncheon at Sheen House, Mortlake. The object of the gathering was to give County Councillors who make by-laws in their several counties a practical experience of the running of these cars, to show them how completely under control they are, and how indifferent horses are to their existence. In accordance with my invitation, I attended on the 7th of June, 11 a. m., at the Automobile Club, 4, Whitehall Court, and found the pavement chalked in spaces, numbered 1 to 60, being sites for stationing as many motor cars, of which the majority were Daimlers. I was fortunate enough to be assigned to the care and hospitality of Mr. Henry Edmunds, of Dartmouth House, 2, Queen Anne's Gate, Westminster, who was driving his own Daimler, with his attendant engineer in front; myself and Colonel Kerrison, of the East Suffolk, occupying roomy seats at the back.

We were cheerily greeted with "where would you like to go?" I ventured to say our invitation was for East Sheen. He laughingly said that that was not half an hour's work, and we had an hour to spare. Choosing therefore Buckingham Palace and the Parks, away we went, passing the Horse Guards, to Westminster, Birdcage Walk, the Palace, and Green Park. Thence over Battersea Bridge, through the Park, Wandsworth, Clapham Common, Wimbledon Common, at such a pace! Slowing down, however, for every bus, cab or carriage and pair that obtruded our path, alarming neither horse nor man, save two—a large horse in a water cart and a skittish cob on Wimbledon

Common. No smell, no discomforting vibration, no noise. The ease with which we dodged the close traffic through Wandsworth and the more crowded districts, dashing along at every clear space of 100 yards or so at 30 miles an hour, on the open commons probably still faster, was a marvel to me, and has made a lasting impression. occasioning the remark to my co-visitor of "what a splendid driver!"

The very beautiful country drive ended at East Sheen House, where, one after another, came the 50 or 60 other motors, which had taken various routes. Nothing could exceed the kindness and attention of our host in finding us good places at a well arranged luncheon table, laid for about 100 guests, who seemed not unwilling to enjoy an admirably managed liberal champagne luncheon. Sir Edgar Vincent, K. M. G., M. P., proved to be an excellent and popular chairman, confining the toast list to the King, visitors and the chairman. He was ably supported by the Hon. John Scott Montague, M. P., vice-chairman of the automobile club. Our exhilarating trip and the champagne glass brought many County Councillors to their feet in grateful praise of our reception and enjoyable tour. The prevailing tendency of the speeches naturally proclaimed the absolute control and freedom from accident of automobiles, and the contrary opinion was scarcely ventured upon by any of the County Councillors. After luncheon the visitors enjoyed the beautiful grounds and took a glimpse of Sheen House.

Finally came a careful examination of the automobiles, the machinery of which was cordially explained and shown to us, and then, one by one, we started homewards. Mine host took us home by another route, apparently taking pride in showing us how well he could steer through the crowded traffic, and so the red letter day came to an end, and a lesson was most pleasantly given to the uninitiated in motor cars.

An Automobile Unbeliever

SINCE the conclusion of the recent road speed tests in France and Germany some writer occasionally gives vent to his ideas of them in a way which shows he has not yet become a convert to automobilism. In such a conservative magazine as "Blackwoods" for August there appeared the following tirade against the so-called worship of speed which up-to-date automobiling has developed.

"The mad race recently run across Europe in automobiles illustrated with naked candour the new worship of speed. From Paris to Berlin panted a mob of mechanical enthusiasts, who cared neither for human life nor human comfort so long as they cut a record on the highway. Here a child was killed, there an aged couple disabled, and a sentimental press made light of these accidents, because it believes that the salvation of man lies in haste. Seventy-five miles an hour on the open road! How glorious an achievement! Is not that country happy which can produce a citizen hardy enough to stand the dust and the racket of seventy-five miles in sixty minutes? Thus all the resources of modern science are recklessly devoted to the increase of pace. Oil, steam, electricity, all play their part in the hideous drama of scurry. Here is a road, says the amateur ; let us cover as much of it as we can in the shortest possible time. We shall stifle our fellow creatures with smoke and smell, we shall deafen them with the clatter of wheels and the roar of machinery; but we shall shake off the offending miles, and in the process we shall satisfy the demands of morality, politics, and sport. This and much more of the same sort is directed against everything modern. Even horse racing is not sacred. In regard to this the new methods are decried, and it is stated that 'if the newest practices triumph it would be kinder and better to convert the horse into a machine. Fill his skin with steam or electricity and let him run about the racecourse as the "sportsmen" recently ran from Paris to Berlin. Then we may encourage modern industry; and if the horse survives only in collections with zebras and wild asses, at least no disrespect will be paid to the deity of pace.' "

No surprise need be shown if the near future will give the writer of the above a number of opportunities to travel by the method which is destined to supersede the horse. Then he will be just as strong in favor of it as he is now apparently against it.

Road Description of the 500-Mile Endurance Test

FOLLOWING are maps, road description and general instructions, as compiled by the committee having charge of this important contest.

MONDAY MORNING, SEPTEMBER 9

RECORD SHEETS MUST BE FILLED IN HERE

Start: Club House, 58th Street and Fifth Avenue, 8 a. m. The carriages will form on the east and west sides of Fifth Avenue south from 58th Street, close to the curb, according to their official numbers, the even numbers on the east and the odd numbers on the west side, with an interval of ten feet between carriages in each column.

Fifth Avenue to 112th Street; turn left into 112th Street to Seventh Avenue; turn right into Seventh Avenue to 154th Street; turn left one block to Central Bridge; over Central Bridge, straight ahead into Jerome Avenue, which follow to Woodlawn Cemetery gate; turn left at first road beyond Cemetery gate (Mosholu Avenue) to Broadway, which follow straight ahead to Getty Square, Yonkers.

8 M. P. H. THROUGH YONKERS CONTROL

From Getty Square into Warburton Avenue, following street railway four and a half miles to Hastings, and the road is then called Broadway on to Dobb's Ferry. At the stone church turn sharp to the left (still Broadway), on to Irvington and Tarrytown.

At Florence House Stable, Tarrytown, *water* can be obtained. Still follow Broadway to a brick church and bear to the left down a hill, across Horses Head Bridge, passing the stone gateway of the Mobile Company's plant on the left, and up the hill, 10 per cent. grade, past Sleepy Hollow Cemetery to the Aqueduct. After passing under the Aqueduct the road is called Highland Avenue, and there is a short hill with a 9 per cent. grade. One and a quarter miles beyond the Aqueduct, opposite a stone church, is public well (*water*) which is on the corner of Scarboro Road and Broadway and Highland Avenue. Continue straight ahead to Ossining (Sing Sing.)

8 M. P. H. THROUGH OSSINING CONTROL

Continue north through this town and take road to left of Sold-

New York to Peekskill

iers' Monument down a hill, crossing a brook (*water*); then up a short hill, 7 to 10 per cent. grade, to a fountain three quarters of a mile beyond Ossining; bear to the left to a school house and turn sharp to the left. The road is very good all the way to this school house, but from here on to Croton the road is sandy. Cross the bridge over Croton River and turn to the left about a quarter of a mile after crossing the river. Just north of this town is a short hill of 12 per cent. grade. Continue one and a half miles to Oscawana (*spring* on the side of the road). One and a half miles from Oscawana is a short hill, 15 per cent. grade; then keep the road to the left across railroad bridge, continuing on to hotel at Centerville (*water*). Turn sharp to the right into Washington Street, passing under railroad bridge and following railroad for about a half a mile, continuing on Washington Street to South Street, Peekskill.

8 M. P. H. THROUGH PEEKSKILL CONTROL

On arriving at Peekskill turn sharp to the left into Nelson Avenue and go one block to McCoy and Best's yard, where time will be taken for the *noon control.*

RECORD SHEETS MUST BE FILLED IN HERE

Peekskill.—Lunch at Eagle Hotel.

MONDAY AFTERNOON, SEPTEMBER 9

RECORD SHEET MUST BE FILLED IN HERE

The first carriage will be started from Peekskill at 12.45 p. m. In leaving Peekskill continue one-half block on Nelson Avenue, then turn to the right into Main Street for half a block, then turn to the left into North Division Street as far as water fountain and take road to left which is Highland Avenue. About a mile further on, go down a long hill, 20 per cent. grade, and cross the bridge over Peekskill Creek ; after crossing the bridge curve to the left and cross Spout Brook ; keep straight on to a little settlement called Annsville and up a short hill, 15 per cent. grade, to a brook which can be crossed or forded, then up another short hill, 13 per cent. grade. One and a half miles beyond Annsville take road to the right at the forks and a short distance beyond cross a brook and *STOP* at signal of approach to control for Hill Climbing Contest on Nelson Hill.

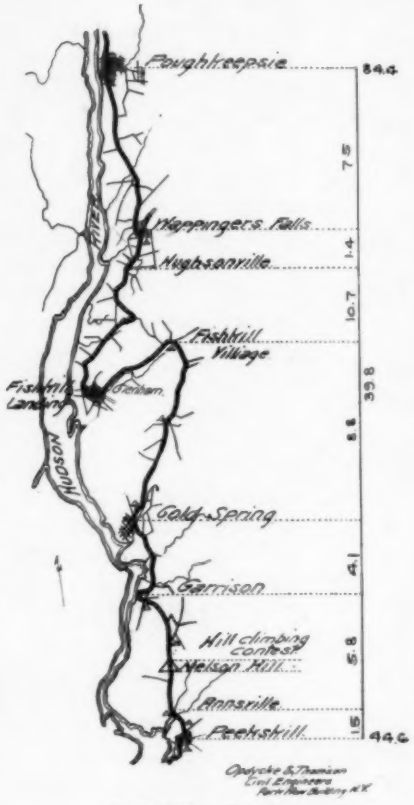
RECORD SHEET MUST BE FILLED IN HERE

Hill Climbing Contest on Nelson Hill for description and profile map see page 838.

Record sheets of contestants who do not compete in Hill Climbing must be filled in at control at top of Nelson Hill.

Proceed straight ahead. One-half mile beyond the top of the hill take road to the left at the forks and cross Kendrin's Brook (*water*) at the four corners at Garrisons ; one-half mile after crossing brook turn sharp to right and continue on two miles, passing cemetery and stone church on the left, crossing Indian Brook and passing a stone water trough, *water* just around the bend. At the forks, one-half mile beyond this, take road to the right, passing a cemetery and crossing a stone bridge, bear to the right a short distance to Main Street, Cold Spring, and turn to the right. At the fork near wheelwright's shop, take road to the left for Fishkill, cross a rustic bridge over brook (*water*) and in about a mile cross or ford another brook to three corners near a church and take road to the left, passing a brick school house on the right, and a little later a small cemetery in the middle of a corn field, also on the right. *Water* in a trough half a mile beyond ; bear

to the right at red barn and cross or ford a brook and go on, keeping to the left and crossing a rustic bridge over another brook, about two miles to Springside Hotel, *water;* then past a small granite monument on the right to mark some Revolutionary event; cross red bridge over Fishkill River one-half mile before coming to Fishkill Village.



Peekskill to Poughkeepsie

8 M. P. H. THROUGH THE FISHKILLS

Follow street railway track through Glenham and Matteawan direct to Fishkill Landing (Griffith & Howe, hardware store, have *gasoline*). Turn to the right on North Avenue for Wappinger Falls, passing Belle Isle Road House on the right, and about 2 miles from Fishkill Landing is a sharp hill, 12 per cent. grade; keep to the right at the forks, passing a red school house on the right, and at the next forks take road to the left through Hudsonville to Wappinger Falls; then down the hill past a *water* trough. At the foot of the hill turn sharp to the right into South Avenue, and follow street railway track 7½ miles to Nelson House, Poughkeepsie, where the time will be taken for the night control.

RECORD SHEETS MUST BE FILLED IN HERE

(The night storage station is on Main Street.)

TUESDAY MORNING, SEPTEMBER 10

RECORD SHEETS MUST BE FILLED IN HERE

8 a. m. Leave Nelson House, which is on Market Street, and

Poughkeepsie to Hudson

go to Main Street, turn to the left one-half block, then turn sharp to the right into Washington Street, continue 1½ miles and then take left road at forks. In about a mile you come to a hill 5 to 13 per cent. grade, then on through Hyde Park, which is 6 miles from Poughkeepsie, going down a short hill 12 per cent. grade, *before* reaching Hyde Park, and passing a pump (*water*) on the left about 1½ miles *after* leaving this village. Country is rolling but roads are very good. In about 4 miles you come to Staatsburg and there you will find a stone *water* trough on the left. Two miles beyond this place take the right road at the forks for Rhinebeck (*water* here).

8 M. P. H. THROUGH RHINEBECK

Keep on and over the hill; at the forks take road to the left. One-half mile from Rhinebeck cross or ford a brook (*water*), go up a hill and at top of the hill at forks take road to right for Red Hook. At the next forks, which is just after crossing railroad track, take road to the left. In about one-half mile you will come to a hill 7 to 15 per cent. grade, keep to the left at the next forks for Red Hook, where *water* can be obtained at hotel. One-half mile from here cross or ford

a large brook (*water*) ; take left road at forks ; take left road again at next forks after leaving Upper Red Hook for Blue Store. At three forks take road to the right and keep straight, passing Hotel Nevis on your right through Clermont. Take road to the left at the next forks after Clermont and continue to Blue Store, where you turn sharp to the left for Hudson (*water*). Keep to the right at the next forks, and 4 miles from Blue Store there is a spring (*water*) on the left, then on through Glendale which is four miles from Hudson. Two miles from Glendale there is a red *pump* on the right. Continue on the Post Road into Warren Street, Hudson.

8 M. P. H. THROUH HUDSON CONTROL

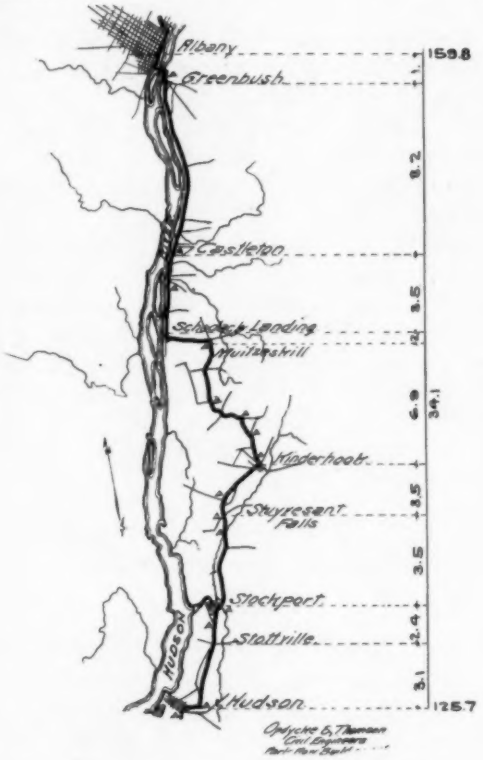
Continue as far as Fifth Street, to the Hotel Central, where time will be taken for noon control.

RECORD SHEETS MUST BE FILLED IN HERE

Lunch at Hotel Central.

TUESDAY AFTERNOON, SEPTEMBER 10

In leaving Hudson go up Warren Street to the Square and turn to the left side into Columbia Street, then to the right into Green Street. At the *water* trough bear to the left passing the Fair Grounds on the left. Take road to the left at the next forks for Stottsville, passing a cemetery to the left, and on arriving at a slate-colored church, turn



Hudson to Albany

to the right, go down a long hill; at the foot, turn to the right and cross bridge over Kinderhook Creek, bear to the left and cross railroad track, go over a small hill and there is a *water* trough on the left. Keep to the right and go up a short hill 12 per cent. grade and then a long hill into Stuyvesant Falls (*pump* on the right in front of what was once a store). Go on down a hill across a bridge and keep to the right; then up a hill across a railroad track. At the next forks take road to the right, then bend to the right and cross railroad track at Sunnyside, keep to the left after crossing railroad track into Kinderhook. (Stone trough on the right—*water*). Turn to the left, passing by cemetery on both sides of the road, to sign post "*Castleton 11 M.*" and at sign post "*Greenbush 18½ M.*" turn again to the left to sign post "*Albany 17 M.*" At sign post "*Castleton 6½ M.*" (Muitzeskill) turn left down to the river to Schodack Landing and to the right and along Hudson River & New York Central Railroad track, north, to sign post "*Castleton 1 M.*" Continue from here on River Street to Castleton. At sign post "*Albany 8 M.*" leave Green Street at your right and follow Albany Post Road, keeping to the left; straight ahead to sign post "*Albany* ⟹" in Greenbush, which is 1 mile from Albany, beginning of Albany control.

8 M. P. H. THROUGH ALBANY CONTROL

After crossing two bridges over railroad tracks, keep straight on until you reach asphalt pavement; turn here sharp to the left into the bridge and cross into Albany toll, 15 cents. At the Albany end of the bridge make a slight jog to the left into Ferry Street, go up this street three blocks and turn to the right into Green Street, to the end of the street, then turn to the right into State Street one block, then turn left one block to Stanwix Hall on the right, where time will be taken for the night control.

RECORD SHEETS MUST BE FILLED IN HERE

Night Storage Station is at Empire Curling Rink on Lake Avenue.

WEDNESDAY MORNING, SEPTEMBER 11

RECORD SHEETS MUST BE FILLED IN HERE

In leaving rink at Albany go out to Lake Avenue as far as State Street, turn right on State Street into Knox sometimes called Northern Boulevard, continue straight north to the Van Rensselaer Boule-

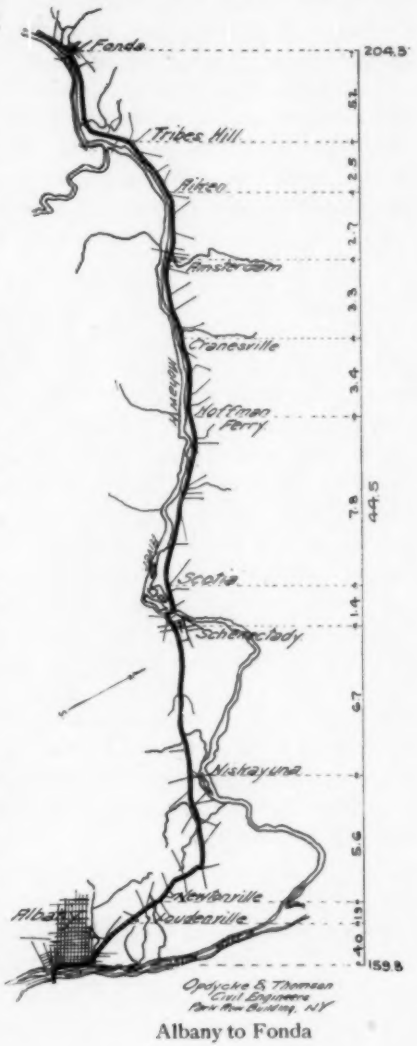
vard over railroad bridge for about two miles, then turn to the left into Menan Road in front of a cemetery gate and later turn to the right into Louden Road for Latham Corners which is about three miles distant. Turn to the left and take main road for Schenectady; one mile beyond take road to the left at the forks and at Verdoy which is three miles from Latham Corners, there is a pump on the right side of the road in front of a store (*water*).

One-half mile beyond is Niskayuna. Then on down a short hill, 15 per cent. grade, passing soon brick church on your right; the road is quite rough along here for a mile or so; then you go down a very steep, rough hill, with a bridge at the foot. *Great caution* must be used at this hill as it is *dangerous* on account of its curve at the bridge.

Go up a long hill leading to the outskirts of Schenectady.

8 M. P. H. THROUGH SCHENECTADY

Go into Union Street, on which continue, crossing railroad track, and then on to Washington Avenue, where turn to the right and cross bridge over Mohawk River; bear to the left after crossing bridge, passing Scotia, bear to the right at Mohawk Avenue. After leaving Schenectady



Albany to Fonda

the road is sandy for about two miles, then good for some miles. A yellow house on the left known as Rectors, five miles out, has a pump in the yard and there is a pump beside the road a few yards further on.

Go up a short hill, 16 per cent. grade, and in three-quarters of a mile go up a short rise, 14 per cent. grade, to the approach of railroad bridge, keep to the left down the hill, red house to the left, then up a hill of 10 per cent. grade. Seven miles from Schenectady go down a hill and across a small bridge into Hoffman's Ferry (*water*), pump in front of store on the left. Three-fourths of a mile beyond here go down a sharp rocky hill, 12 per cent. grade at Crane's Village, *water* trough on the right side of the road. At the beginning of railroad track is Amsterdam; *water* is on the right side of the road.

8 M. P. H. THROUGH AMSTERDAM

Continue on Main Street, Amsterdam, as far as Market Street, turn to the right into Market Street for one block and then turn to the left into Division Street and at end of brick pavement turn to the right into Clinton Street for a short block and then to the left into the boulevard and go on towards Fonda which is twelve miles away. Cross the railroad track at end of boulevard and in three miles arrive at Akin (*water* on the right). Road from end of boulevard to Akin is bad, then for half a mile it is better to Peppers Hill, which is very rocky and sandy with 7 per cent. grade. Then follow along New York Central track for about two miles on very fair road. Five miles from Amsterdam is Tribes Hill, which is one-fourth of a mile long, rocky and quite poor road, 5, 12 and 15 per cent. grade. At the top of the hill is a well (*water*) on the right. Bear to the left, passing school house on the right, keep to the right at the next forks near a small church, which has a cross for a steeple, on the right then down a hill over a white bridge, and it is a good road for three miles. Two miles before reaching Fonda there is a *water* trough on the left. Continue on to Hotel Roy (Fonda), formerly Snell House, where time will be taken for *noon control.*

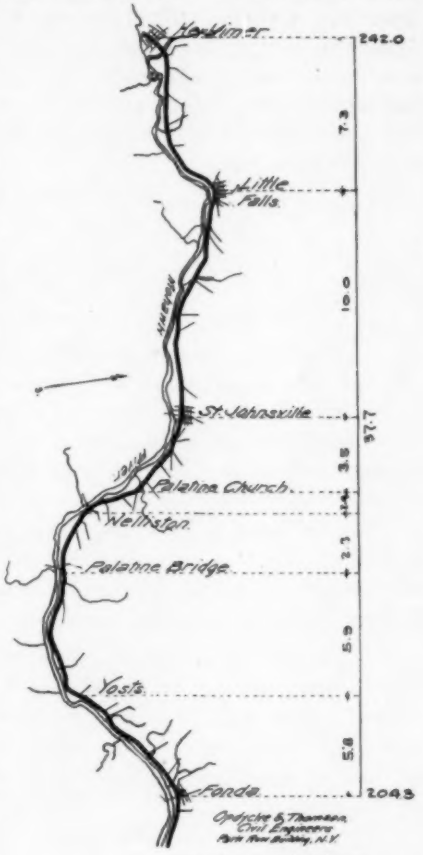
RECORD SHEETS MUST BE FILLED IN HERE

WEDNESDAY AFTERNOON, SEPTEMBER 11

RECORD SHEETS MUST BE FILLED IN HERE

In leaving Fonda bear to the left opposite Farmers Hotel and cross the bridge over the creek and one railroad track, then follow

New York Central for a long distance. Six miles from Fonda is a water trough on the right opposite railroad pumping station; two miles beyond this go over a rocky hill, 15 per cent. grade on both sides, and a short distance beyond foot is a *water* trough on the right. The road from here for the next ten miles is much better. Two miles from the last water trough is another trough (*water*) on the right and at Palatine Bridge a little further beyond, is a stone trough on the right. Four miles beyond is Nelliston; go down a hill and at the foot is a *water* trough on the right, then up a sharp hill, 19 per cent. grade. Two miles beyond Nelliston is a *water* trough on the left. In another mile pass Palatine Church on the left, the oldest building in this section of the country. Three miles beyond comes St. Johnsville, which has a *water* trough on the right at the edge of the town and another in the square.



Fonda to Herkimer

8 M. P. H. THROUGH ST. JOHNSVILLE

Three miles beyond this is East Creek, where there is a *water* trough on the right. Cross a covered bridge and continue to Little Falls, seven miles beyond. Going into Little Falls under railroad bridge there is a hill of 12 per cent. grade (*water* a little beyond this) and again at the end of the Main Street.

8 M. P. H. THROUGH LITTLE FALLS

Continue straight on toward Herkimer, seven miles. After leaving

Little Falls the road is quite rough for about two miles, then good for two miles, then down a little hill, then begins an ascent of a hill a mile long, 5 to 8 per cent. grade. Then for two miles a series of small hills with road in fair condition. At the top of a hill on the right is a water trough, where a danger signal will be displayed as a caution in descending a winding hill at the foot of which is a long bridge, over West Canada Creek, and thence into Herkimer. The name of the street after crossing the bridge is Albany Street, on which you continue as far as the depot, and then turn to the right into Main Street and continue 1½ blocks to the Palmer House, where time for night control will be taken.

RECORD SHEET MUST BE FILLED IN HERE

THURSDAY MORNING, SEPTEMBER 12

RECORD SHEETS MUST BE FILLED IN HERE

In leaving Herkimer go down Main Street, cross New York Central Railroad and follow street railway through Mohawk and Ilion to Frankfort.

(*Water* on left of lumber yard). Road rough until a mile beyond Frankfort, then a fine road for a mile, then sandy and rough to Utica.

Turn to right, go under a railroad bridge, and in half-mile cross or ford a brook.

Turn to the left where the cinder path crosses the road, and go toward the Masonic Home (which is on the outskirts of Utica).

8 M. P. H. THROUGH UTICA

Crossing bridge over canal and two railroad tracks, bear to the left just a little, and sharp to the right through the Masonic Home grounds. Keep to the left after passing the house, and go down a hill, and up another in the grounds to the asphalt, on which continue for two miles.

Turn to left into Genesee Street, and go toward New Hartford, which is four miles away; and *water* on both sides of the road in front of hotels. Take road to the right after passing hotels.

Cross railroad track in about a mile and take road to right at next forks for Kirkland, which is four miles away, passing a cemetery on the left. At the next forks take road to the right, and just beyond is a *water* trough on the right. Good road from here for about a mile,

then fair or poor to Laidsville, then improves ; the road is rolling but in good repair.

Five miles from Laidsville is Vernon, and just beyond is *water* trough on the right. Again in about a mile *water* on left in a farm yard.

Go under railroad bridge near the silk mills of the Oneida Community and turn sharp to right following West Shore R. R.; then go under West Shore railroad bridge again and keep to left again for Oneida, three miles.

8 M. P. H. THROUGH ONEIDA

After crossing railroad track at Oneida Castle take first street to right, which is Main Street, and continue as far as Madison Street. Turn to right into this street, and Madison House is half-block on the right, where time for *noon control* will be taken.

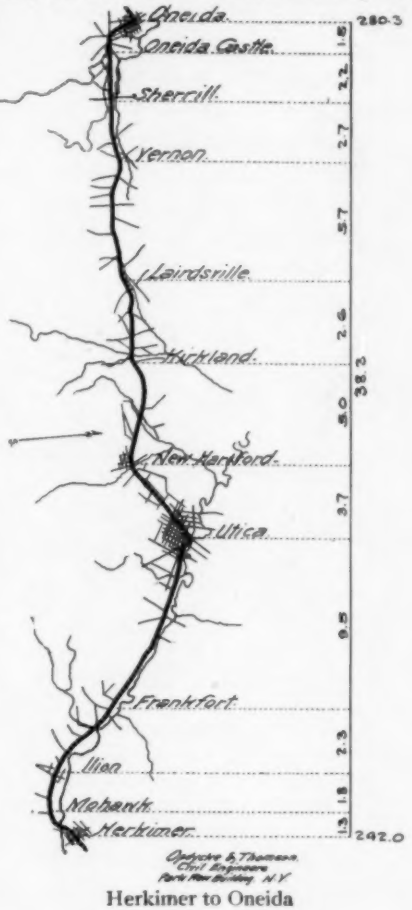
RECORD SHEETS MUST BE FILLED IN HERE

Lunch at Madison House.

THURSDAY AFTERNOON, SEPTEMBER 12

RECORD SHEETS MUST BE FILLED IN HERE

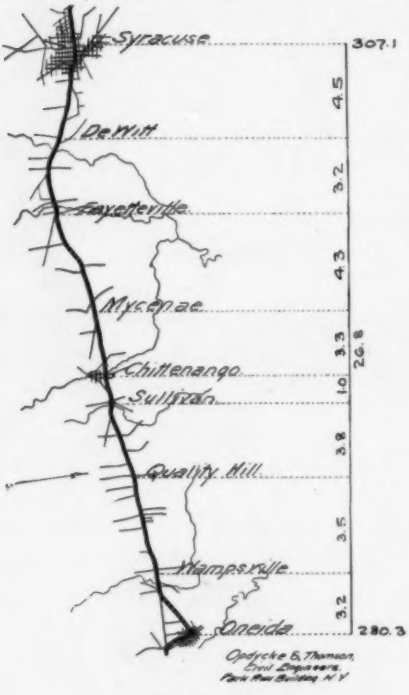
In leaving Oneida go out on Madison Street, turn to the left into Main Street, for one block, and then to right into Lenox Avenue, and continue toward Chittenango, twelve miles away. The roads from Oneida to Syracuse are poor.



At the forks take road to the right, go down a short, rocky hill

of 10 per cent. grade, and a little beyond up a short hill, 6 per cent. grade, passing through Wampsville, which is about 3½ miles from Oneida. Water trough on the left half a mile beyond.

Then up long hill, 8, 9 and 10 per cent. grade and down a long hill across Lehigh Railroad track, through Quality Hill, passing on the right a white school house with a large bell; then down a long hill, at the foot of which is a brook (*water*); half a mile beyond is a water trough on the left; then over a long hill, continuing on through the village of Sullivan.



Oneida to Syracuse

Take road to the right at forks and go on through Four Corners, Chittenango for Fayetteville, crossing a bridge and up a short hill, 12 per cent. grade.

Continue straight on at the foot of hill following through telegraph poles, passing a cheese factory on the left (*water* trough here).

Then comes a short hill, 12 and 14 per cent. grade, and then a series of hills 9 to 5 per cent. At the forks on a hill, take road to the right, and go down a rocky hill. One-half mile beyond is a *water* trough on the right under a windmill in barnyard.

Continue through village of Mycenae; cross or ford a brook; then up a hill, 6 per cent. grade, passing a stone school house on the left at the top. At the top of a hill, one mile beyond, there is water on the left at a red barn.

Cross railroad track at the Fayetteville station one-half mile before arriving at the village. (Stone water trough in the square.) Two and one-half miles beyond is a toll gate (toll 8 cents). In 1½ miles

you come to Orrville (*water* in front of the hotel) ; 1½ miles beyond stone *water* trough on the left.

Four miles from the first toll gate is a second one (toll 8 cents). One-half mi'e beyond is Syracuse city line where asphalt pavement commences. This is Genesee Street, on which continue to Yates House, where time will be taken for *night control.*

RECORD SHEETS MUST BE FILLED IN HERE

The night storage station is at Convention Hall.

FRIDAY MORNING, SEPTEMBER 13

RECORD SHEETS MUST BE FILLED IN HERE

In leaving Syracuse cross Swing Bridge on to West Genesee Street, and continue on asphalt and brick pavement two miles to the road for Camillus.

Go up several small hills, and finally go down a long, winding hill, very crooked and covered with sharp rubble, and cross railroad track into Camillus, and after passing through the village go up a very long, stony hill, 17, 14, 10, 7, 9 per cent. grade. This hill is about a mile long ; then go down a long hill, and after this there is a series of hills, but quite good roads for a few miles. Two miles before arriving at Elbridge is a *water* trough on the right, and also a stone *water* trough on the left as you enter the town. Continue straight, passing a thick row of willow trees, on the left is a *water* trough a short distance beyond which, at the second forks, take road to right for Weedsport, four miles beyond. Keep to the left near old house and barn.

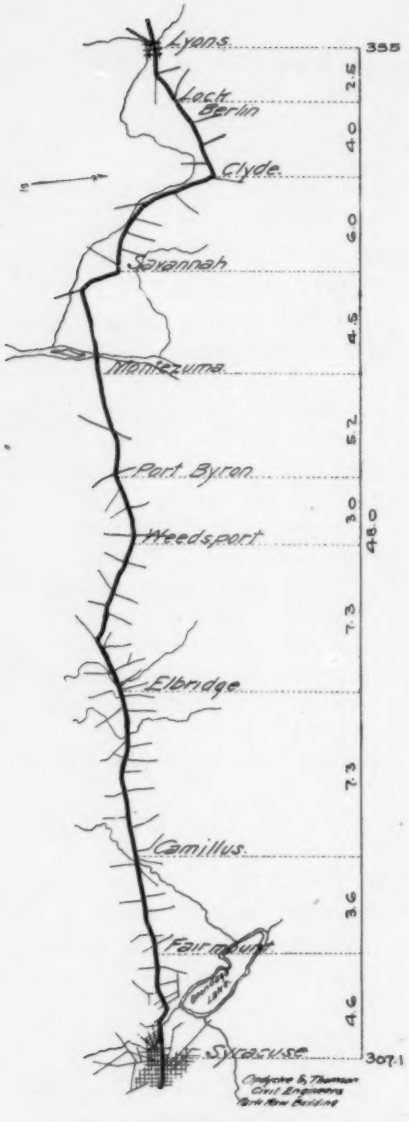
Just a little beyond another forks take the road to the right for Weedsport, which is three miles beyond.

Up a long hill, 9, 4 and 9 per cent. grade. Cross or ford a brook just on outskirts of Weedsport.

8 M. P. H. THROUGH WEEDSPORT

Cross railroad track into Weedsport (at one *water* trough on the left) and cross the canal bridge just beyond the town, and keep straight on to Port Byron, which is three miles away.

Go under railroad bridge, bend to the right and cross a red bridge. (Two miles beyond, *water* trough on the left.) Then cross canal bridge and enter Port Byron. At the flagstone crossing turn sharp to the right for Montezuma. Cross bridge and turn to left at blacksmith shop, and in 50 feet turn to right, passing school house on the right, then keep to the left at the next forks.



Syracuse to Lyons

Go up a few short hills, then down a long, sandy, rocky hill, then over one-half mile of sandy road, and over a short hill, 10 per cent. grade, and still another 14 and 18 grade, then down a rough rocky hill, and go over the worst road on the route.

Cross canal bridge and turn sharp to the left off the bridge and cross the red bridge over creek.

Keep straight on through the four corners, passing the village of Montezuma a few rods away on the left. Go through an old toll gate, and cross bridge over creek, and very soon cross another bridge.

The roads through Port Byron and Montezuma through the salt marshes are very bad, but from Savannah to Lyons are better.

At the forks beyond the marsh take road to right for Savannah (*water* trough on the left a little beyond).

After passing the stores in Savannah, turn sharp to the first left into West Church Street for Clyde. Keep to right at railroad bridge at top of hill, then to the left at the forks, and it is a straight road toClyde.

At the forks just beyond an old blacksmith shop take road to right, over a small hill, 12 per cent. grade, and down a long hill and pass through a long swamp, and over a bridge.

Then over a short hill 10 per cent. grade (*water* trough on the right about three miles from Savannah) and school house on the right a little beyond, and continue straight on into Clyde.

8 M. P. H. THROUGH CLYDE

On reaching Clyde turn to the right into Main Street for one-half block, then to the left past the park, and at the end of the park turn to the left again for Lyons. Go over a hill 10 per cent. grade and over another 7 per cent. grade and pass through the village of Lock Berlin. Take road to the right at next forks.

Entering Lyons through Montezuma Street, turn left into William Street, one short block, then turn to the left into Water Street, and cross canal bridge to the fair grounds, where time will be taken for *noon control.*

RECORD SHEETS MUST BE FILLED IN HERE

Lunch at Congress Hall.

FRIDAY AFTERNOON, SEPTEMBER 13

RECORD SHEETS MUST BE FILLED IN HERE

In leaving Lyons go out Water Street and at the top of the hill take road to left for Newark, which is nine miles away.

Keep to the left at Canal Locks, cross bridge and then go to right, following canal and passing County Alms House on the left, Then over the canal again, 16 per cent. grade, at approach and turn sharp to the left, following the canal on the other side and passing school house on the right. Roads from Lyons to Rochester fair except few miles through Egypt.

Follow telegraph poles and turn to left, crossing railroad tracks, then under a railroad bridge.

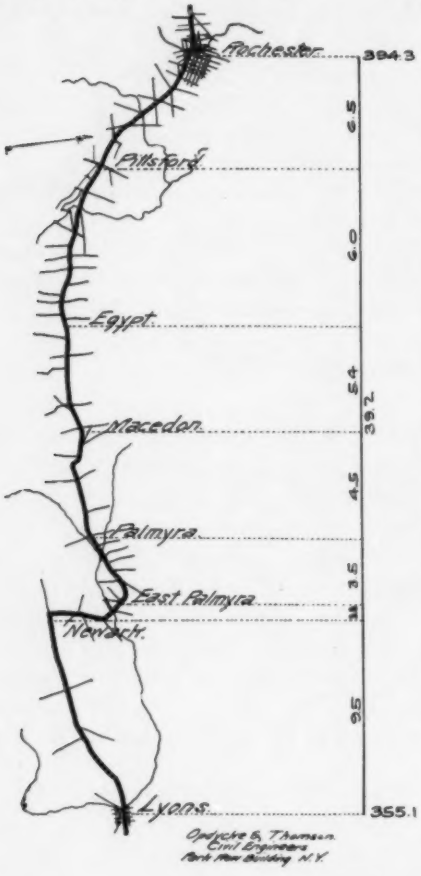
At the forks beyond take road to the right into Newark.

8 M. P. H. THROUGH NEWARK

Turn left at the hotels and cross canal bridge, turning sharp to the right after crossing bridge, and proceed to East Palmyra, four miles away.

Take road to the left at the forks near the canal bridge, and follow canal. At the next forks take road to the right and cross canal bridge, keeping to the right on either side and crossing railroad track. At the next forks take road to the left.

At the next forks take road to the right, passing through long rows of maple trees on each side. Keeping to the left at the brick churches, and then down a small hill into East Palmyra. (*Water* trough on right near the stores). About a mile beyond is a *pump* and trough on the right.



Lyons to Rochester

At the forks keep to the right, crossing bridge over creek and then a railroad track, passing a school house on the right.

8 M. P. H. THROUGH PALMYRA

Cross canal bridge into the center of the town of Palmyra. (*Water* trough on the left, just before coming to Powers Hotel).

Keep straight on for about two miles, turn to right and cross bridge at the yellow mills, and a few rods further on cross canal bridge and take the first left for Macedon, which is four miles from Palmyra. Less than one-half mile after crossing canal bridge there is a *pump* and a trough at the foot of a hill, 9 per cent. grade. *Water* again on the right in another half mile.

Pass Canal Lock No. 60 on the left and one-half mile beyond turn to left across canal bridge into outskirts of Macedon. Straight through Macedon and at the forks beyond the town take road to right (which s known as Rochester and Palmyra Road) for Rochester eighteen miles away.

In about a mile go over a hill, which has 18 per cent. grade on

the up side, and is long, rough and rocky on the down side. Near the foot cross a brook (*water*) and go up a long hill, 12, 9 and 14 per cent. grade, and then down a long hill, and soon pass through the town of Egypt, which is only a post office.

At the forks beyond, keep to the right and go up the hill towards Pittsford.

At Pittsford (*water* trough on the left in square) keep straight on for Rochester, which is about seven miles.

In about four miles at twelve corners there are *water* troughs in two places on the right.

The asphalt pavement is Monroe Avenue, Rochester, on which continue for two miles, and then turn to right into Clinton Avenue, for several blocks ; and then turn to the left into Main Street.

Follow Main Street for a dozen blocks to Hotel Powers, where time will be taken for *Night Control.*

RECORD SHEETS SHOULD BE FILLED HERE

SATURDAY MORNING, SEPTEMBER 14

RECORD SHEETS MUST BE FILLED IN HERE

Leaving Rochester, go out Main Street over Central Bridge, and at the fork near Orphan Asylum, take road to the right. The name of the street after crossing bridge is West Avenue. In about four miles go through Gates Center, passing brick school house on the right and keeping on toward Chili, another hamlet six miles away. One mile from Gates Center there is a pump and trough on the right, in front of road house.

Pass a school house on the right, and take road to the left at the forks beyond. Pass Methodist Seminary on the right, and soon come to Chili. At the forks take road to right for Churchville, four miles beyond.

Go up a series of hills, which are not difficult as the roads are good. *Water* on the right in front of store in Churchville.

Keep straight on for Bergen, two miles beyond railroad bridge ; at the next forks take road to the right into Bergen. Water on left in the town. Pass through the town and follow New York Central for about a mile, then turn to the left and continue for a mile in sort of a curve and cross railroad, passing school house on right, and heading toward Byron. (Pump in the town on right). Cross brook at the edge of the village; keep straight on for Batavia, ten miles away. Take road to left at forks near railroad crossing and go towards a red

barn on the left. Keep to the right at the bend in the road, and at forks near school house take road to left. Cross a bridge by an old mill and go up a little hill. At the forks near stone blacksmith shop take road to the left and go up a series of hills. One mile beyond, *pump* on right in front of a house. At the forks take the road to the left for East Main Street, Batavia, and continue to Hotel Richmond on the left, where time will be taken for *noon control.*

Rochester to Batavia

RECORD SHEETS MUST BE FILLED IN HERE

Lunch at Hotel Richmond.

SATURDAY AFTERNOON, SEPTEMBER 14

RECORD SHEETS MUST BE FILLED IN HERE

In leaving Batavia, keep up West Main Street to Walnut Street on the bridge and turn sharp to the right into South Main Street. At the forks take road to the left, which is Pearl Street, for West Batavia, six miles away. Cross a railroad track in about two miles, and about two miles further on pass a white school house on the left. *Water* at road house on the left, six miles from Batavia. At the forks near white school house, take road to left for Corfu, which is six miles from West Batavia. Pass through Corfu at the forks two miles beyond, take road to the right, and in one-quarter of a mile cross a single railroad track, and soon go through Crittenden, which is four miles from Corfu. Keep straight on to the forks, and take road to the right for Mill Grove, which is three miles from Crittenden. *Pump* on the left in the

town. Keep on, passing an old cemetery on the left, and over a few small hills, and go through the village of Wilhelm. Post Office on the right and school house on the left. This hamlet is four miles beyond Mill Grove. Continue straight on for three miles to Bowmansville. Pass through Bowmansville (*pump* on right in front of hotel) and it is six miles to the city line, and ten miles to the center of Buffalo, passing through a toll gate (toll, 5 cents). From the city line the road is called Genesee Street, on which continue as far as Chippewa Street (hay scales on the corner of Chippewa Street). Turn to right into Chippewa Street for four blocks, then to the right into Delaware Avenue as far as the tunnel, where time will be taken for *night control.*

RECORD SHEETS MUST BE FILLED IN HERE

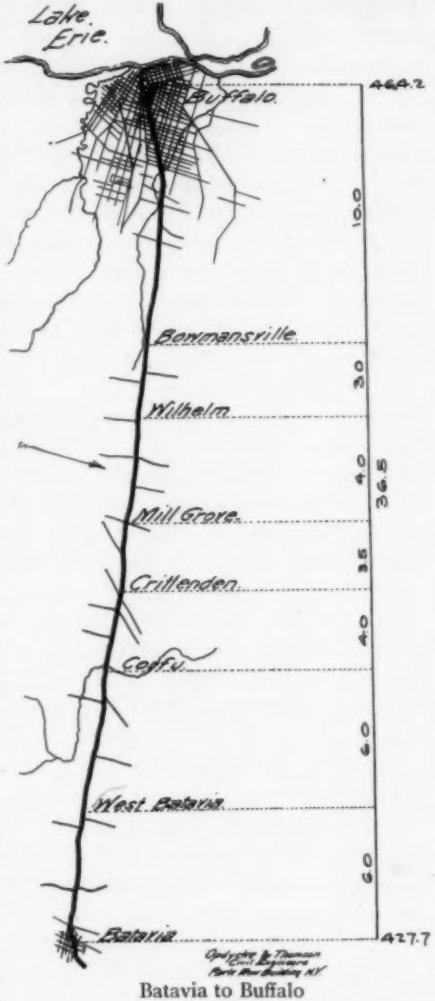
HILL CLIMBING CONTEST ON NELSON HILL

MONDAY SEPTEMBER 9

Nelson Hill is about three miles north of Peekskill.

The following special rules and conditions will apply to this contest:

1. A vehicle in climbing the hill, on being signalled by an overtaking vehicle, shall drive to the extreme right of the road.



Batavia to Buffalo

2. If it becomes necessary for a vehicle to stop on the hill, it must take a position on the extreme right of the road as nearly as practicable.

3. Vehicles, on arriving at the signal of approach to control for hill climbing contest, will stop; those which are going to compete in the contest, on the right side of the road; those which are not going to compete, on the left side of the road.

4. The control for the Hill Climbing Contest will open at 1 p.m., and remain open for half an hour until 1:30 p. m., during which time those vehicles which desire to compete in the contest will be started up the hill at 30 seconds intervals. From 1:30 p. m., to 2 p. m., those vehicles which do not desire to compete in the contest will proceed up the hill to the beginning of the next control on the summit, where their time will be taken and they will proceed toward Poughkeepsie. This procedure will be repeated in alternate half hour until 4:30 p. m., when the control at the bottom of the hill will close. The control on the summit of the hill will be closed at 5 p. m.

The official time of vehicles which have climbed the hill will be taken at the summit *without stop* and will be the official time for the beginning of the next control. This time will be entered on contestants' record sheets at the night control at Poughkeepsie.

This trial is a separate contest. The time occupied from reaching the control at the base of the hill to leaving the control at the summit *will be deducted from the general running time.*

Stop at red flag, signal of approach to control for hill.

RECORD SHEETS MUST BE FILLED IN HERE

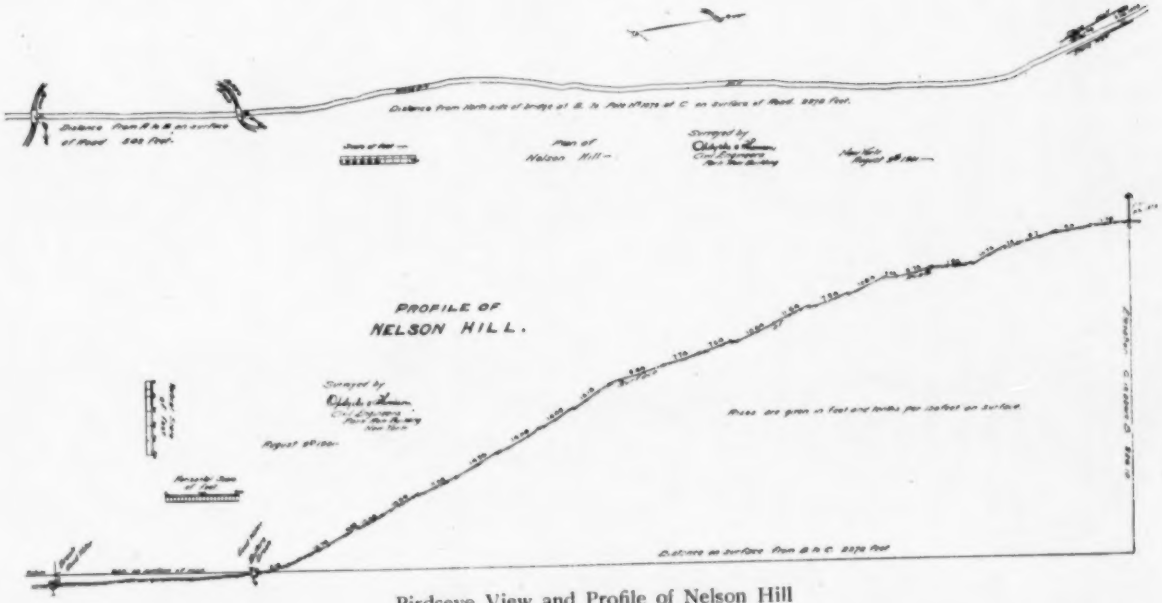
Contestants who desire to compete will drive to the right side of the road 500 feet beyond to control for Hill Climbing Contest, in order of their arrival, allowing 10 feet space between vehicles. Other vehicles will drive to the left side of the road.

Record sheets for hill climbing contests will be filled in here, and vehicles will be started at 30 seconds intervals.

Proceed at full speed up the hill to signal at summit at telegraph pole No. 1,079, which is end of Hill Control, where time will be taken *without stop*, which will constitute the official time for the beginning of the next control.

Proceed straight ahead toward Poughkeepsie.

The President of the Club, Albert R. Shattuck, Esq., has presented a Cup to be awarded by the Committee to the automobile carrying two passengers and running on four wheels which makes the best time in climbing Nelson Hill.



Birdseye View and Profile of Nelson Hill

Buffalo-Erie Race Abandoned

AFTER much expectation being shown on the part of intending contestants in the proposed Buffalo-Erie Race it has been found necessary to abandon it with also the events which were to constitute an automobile week at the Pan-American Exposition. The following announcement from the Automobile Club of America, under date of August 20 explains the trouble:

"Owing to the failure of the Pan-American authorities to secure the necessary consent for the 100-Mile Road Race from Buffalo to Erie in September, 1901, the Governors regret to announce that the Automobile Club of America Sweepstakes Race and One-Mile Record Race will not be run over this course. Although the consent has been absolutely promised for some time, it has not been received, and failing such consent no definite action could be taken by the Club. The time is now entirely too short in which to receive entries and successfully organize a race of such an international character as this race was intended to be.

"The Governors of the Club have therefore decided to endeavor to hold the Annual Sweepstakes Race and Mile Record Race *elsewhere in the month of* October, 1901, preserving its international character by inviting entries from abroad as originally proposed.

"Believing that without these two races it would be impossible to organize a successful 'Week of Sports' in Buffalo, the Governors have recommended that the same be abandoned."

Rivalry Stimulates Manufacturers

THE two big races abroad this Summer were interesting even only in one way, this being the duel between Mors and Panhard-Levassor. If the other far reaching results were overlooked and merely the battle between those two firms noted, followers of automobile doings would have plenty of matter for reflection. Mors, represented by the all conquering Fournier, won all available prizes, but the Panhard representatives, Rene de Knyff and Girardot, and at one time Antony, pressed the other firm hard.

Panhard-Levassor were first in the light car division, Giraud winning honors here. And again, just as in the Paris-Bordeaux, the Renault motorette, a wonderful light engine for speed, worth, and endurance, was to the fore, this firm annexing the three first places, and fifth place as well, out of a possible six—a phenomenal performance. In the motor cycle division, DeDion-Bouton asserted supremacy once more, Osmont on his three-wheeler riding the total distance in the astounding time of 18h. 59m. 5s. Out of the four finishing three-wheelers, four were road DeDions, a feat that speaks for itself. Of the total field of starters (109 men) about half did the entire distance in the allotted time. The average pace, hot though it was, did not approach the record reached in the Paris-Bordeaux, by reason of the inferior roads and longer distance traveled.

Fine Irish Scenery

SOME of the scenery in Ireland which can be viewed while travelling on the well built roads that run along water courses and through mountain passes is well described in the *Motor News*, from which we take the accompanying illustrations and descriptions.

"Coomakista is a pass 4¼ miles long, but beautifully engineered, looking down upon Derrynane Bay and Harbour. The road surface is excellent, and is typical of the Kerry roads. Magnificent views to-

Coomakista Pass

seaward are obtained at many points. The road commands a splendid prospect of rock bound coast and jagged islands, and beyond them to the horizon the swelling bosom of the great Atlantic. Near the summit the pass trends inland and gives interesting views of the valleys sloping down towards Waterville. To see Coomakista at its best it should be visited on a moonlight night when a half gale churns the sea. Then there is no finer piece of marine scenery than the view of the angry sea with its white foam and black rocks under the pale light of the moon.

"Ballaghbeama is the wildest and most desolate pass in Kerry. Road narrow but good, except for half a mile. This trip is optional, as will be seen from the itinerary. It is an exceedingly difficult climb for a motor car, but the journey will well repay the adventurous driver. The narrow defile winds through towering heights of imposing grandeur."

Ballaghbeama—The Wildest Pass in Ireland

The attempt to preserve the semblance of horse-drawn carriages leads to many peculiar and too often useless designs. A recent issue of the *Patent Office Gazette* shows two cases of this where a motor truck is attached to a carriage in place of a horse by suitable or unsuitable connections. The result is a conglomeration which is neither automobile nor horse-drawn carriage and the money for patenting might just as well have been thrown into the fire. One device goes so far as to connect the driving mechanism by reins so that the driver can say "g'long," and pull either rein as he desires. People who are too much attached to horses to drive a regular automobile, are not going to be coaxed into it by any such monstrosity as this.

Foreign Automobile Notes

AUTOMOBILING abroad is at its height on all sides and in every shape—endurance contests, prize tournaments, expositions and organizations—a veritable *furore* from Pau to Nice, at Lille, Brussels, Anvers, London, Hamburg, Berlin, Milan and many other cities. No other industy has ever arisen in so short a space of time with such unprecedented and vigorous vitality, insomuch, that it is not an exaggerated statement to assert that this new method of conveyancing is going to transform the economic conditions of the whole social system.

Here comes the Mougeottes to the front for mail collections in Paris and outlying districts, these being so named after M. Mougeot, Assistant Secretary of State in the mail and telegraphic department, who, accompanied by M. Duboys, has definitely proved the efficacy of this system by making the first official demonstration in an electric vehicle which will carry 800 kilogrammes of mail matter. The postal service of Paris for collecting mail matter will soon be entirely handled by these Mougeottes, and the messenger service will also be conducted in this manner. Steam and gasoline motors will serve for the same purpose as the electric ones now in use. In Amsterdam this form of postal service has already been established.

M. Bouton, of the DeDion-Bouton Motorette Company, has been made Chevalier of the National Order of the Legion of Honor. He has well merited this distinction, rising as he has by his own brains and energy, from workman-mechanic (1862 to 1882) to associate partner of the house, having created numberless inventions in locomotive vehicles and gained first prize for them, and the gold medal, at the Exposition of 1900. The 1,500 workmen now under his management recently presented their chief with a cross of brilliants, a gold chronometer watch and a handsome mantel ornament.

The great highroad constructed from Tamanave to Tananarive, in Madagascar, which has recently been completed at an enormous expense (9,000,000 francs), and which will revolutionize transportation in this great African colony, was traversed at the inauguration of the same, by an automobile covering the distance, going and returning, between Mahatsara and Tananarive in three days—the same distance being formerly traveled in nine. This route is cut out through precipitous ravines and impenetrable forests.

The automobile of the King of Belgium is of 20 horse-power with four speed rates—20, 40, 60 and 80 kilometers. It is larger than that of the Rothschilds, which is described as most elegant ; the aluminum body is painted red, frame royal blue with blue wheels traced in red. All the wooden portions visible are of highly polished mahogany.

Sites et Monuments de la France, published by the Touring Club of France, furnishes an excellent guide for tourists with the automobile who may wish to visit the artistic curiosities and marvelous sites of Provence, that region so redolent of historical memories.

The number of automobile accidents is on the increase and comprise all varieties of carelessness and incompetence on the road. The universal desire to go a hundred kilometers (62 miles) an hour is responsible for the majority of accidents.

A Parisian named Chapelle, not well skilled in driving, recently turned a road corner too sharply, near Corneville sur Risle, in the Department of Eure. The automobile upset and fell on him, and while he was pinned under the weight of four thousand pounds, he was burned to death by the petroleum from the reservoir.

Prince Galitzin has discovered to his cost while bubbling across the Brunig Pass that chauffeurs are not welcomed in Switzerland. He was stopped at Lungern by a bare-headed man in shirt-sleeves, who demanded forty francs, and on the Prince protesting produced an order for his arrest. To avoid delay, the Prince paid the amount and was allowed to proceed. An order to stop him had been telegraphed after him from Giswyl station on the Brunig Pass, the pretext being excessive speed. The authorities subsequently apologized for the official's rudeness, but kept the money, whereupon Prince Galitzin sent his automobile across the French frontier by rail and bid Switzerland a long farewell.

The automobile trade of France keeps growing daily. The Marquis DeDion, of the famous firm of DeDion-Bouton, writes that never since its advent has the automobile been so much in demand. They are doing over a million francs per month, made up as follows:—170 voiturettes of an average price of 4,800 francs each, 400 motors and 200,000 francs worth of detached pieces. M. Rene de Knyff, of the Panhard-Levassor Company, told the same story. Since the Paris-Berlin race they have receieved orders for five million francs and others are still coming in. The King of Italy has ordered two new machines and the London agent cannot get orders filled quickly enough.

LA CHAUFFEURETTE.

Long Island Automobile Club

THROUGHOUT the summer, except during August, the Long Island Automobile Club has held many Saturday afternoon runs starting from the new club rooms, Fulton Avenue, corner of Bedford avenue, before or just after luncheon. In proportion to its age and membership this club has held more runs than any other automobile organization in this country. The distance to the objective point ranges between fifteen and thirty miles, the average being about

On One of Long Island's Boulevards

twenty miles. The accompanying picture shows some of the vehicles of the club's members as they stopped on one of Brooklyn's new broad boulevards, to wait for the club president, Louis Adams, who was at the rear fixing a puncture in his new De Dion-Bouton Motorette. The objective point of the run was Long Beach, where the carriages arrived in time for an enjoyable repast, the return trip being made in the evening.

The first carriage in the picture belongs to Henry S. Chapin, it being none other than his Long Island Endurance Test winning surrey, made by the Haynes-Apperson Company. His carriage on the

Long Beach run took three guests and arrived in good shape after giving its occupants a fine example of pleasant automobile riding. The only noticeable weakness in the vehicle was when an elevation or indentation in the road was met during speeding. The rear springs then seemed to be a trifle weak or too flexible, whichever it might have been. The owner thought that stiffer springs would rectify the trouble.

Next in line came another Haynes-Apperson surrey, belonging to F. B. Stevenson and driven by Edgar Apperson. This is a later

Long Island A. C. Lounging Room

vehicle than Mr. Chapin's and is finer in several ways. The third vehicle, a Locomobile, belonged to R. Reynolds; the next, another Locomobile, belonged to A. B. Fischer and the next to G. W. Whitehead. Cornelius J. Field was next driving a De Dion-Bouton surrey, his guests being his sister and his brother-in-law. Dr. Nathaniel Robinson on a De Dion-Bouton New York type of motorette is the last carriage in line, and back in the distance Mr. Adams' vehicle can be seen against the curb—tire repairs being assiduously made.

The other picture represents the main or lounging room of the

club's new quarters. Its location, Fulton and Bedford Avenues, is unusually central, the general vicinity being readily accessible from all parts of the city. It is but a short distance from Prospect Park, the streets leading to the latter from the club rooms being exceptionally broad and well paved. Life in the club is most democratic, the average member generally handling his own machine. This alone develops fraternity rapidly among new members, who after a few visits to the rooms or after taking several trips on the club runs, get to know the members in a way that merely social intercourse could not bring about. There are quite a number of members of the Automobile Club of America who are also enrolled in the Long Island Club, and as a result there is more or less a natural affiliation between the two organizations. This is also true with the Automobile Club of New Jersey, some members of which are also enrolled in the parent organization.

Notes

THE carrying of duplicate parts is a feature which receives too little attention from many automobilists. Just as the bicyclist who goes out without a tool bag and its equipment eventually comes to grief, so will the driver who tempts fate too long in this direction. Of course, we don't like to think of soiling our hands and clothes when out on a run, but even that is preferable to being towed home or leaving the machine by the wayside. A few extra nuts, washers, cotters and other parts, as well as material for tire repairs will often save time and trouble, to say nothing of dollars, if the loose parts are neglected. The old "ounce of prevention" adage applies very strongly to automobiling.

One of our friends suggests that a suit of "quick-put-on" overalls should form part of the equipment of every automobile. He is a good mechanic and careful driver, but he has had occasion to frequently make minor repairs on the road, and evidently has vivid recollections of grease spots on coat or trousers. A bunch of clean waste, on which to deposit the first layer of dirt from the hands, is also desirable. For touring, these suggestions are well worth considering, and they are not amiss for almost any riding one may do.

Automobile Club Directory

Under this heading we shall keep a record of the motor vehicle clubs both of this and other countries, and we hope to have the co-operation of club officers in making it accurate and complete.

*Corresponding clubs of the Automobile Club of America are designated thus *.*

Automobile Club of America, S. M. Butler, Secretary, 95 Liberty St., New York; representative on International Racing Board, Clarence Gray Dinsmore; Substitute, John H. Flagler.

Automobile Club of New Jersey, Secretary, Dr. H. Power, Montclair, N. J.

Automobile Club of Baltimore, W. W. Donaldson, Secretary, 872 Park Avenue, Baltimore.

Automobile Club of Brooklyn, Secretary, C. Benton Dix, Hotel Clarendon, Brooklyn.

*Automobile Club of Columbus, O., C. M. Chittenden, Secretary, Broad Street.

Chicago Automobile Club, Secretary, H. M. Brinkerhoff, Monadnock Block, Chicago.

Indiana Automobile Club, Indianapolis, Ind. Secretary, August Kabich.

Long Island Automobile Club, Secretary, Charles W. Spurr, Jr., 1190 Fulton Street, Brooklyn.

Automobile Club of New England, Secretary, Geo. E. McQuesten, Brookline, Mass.

*Cleveland Automobile Club, L. H. Rogers, 357 Amesbury Avenue, Secretary, Cleveland, O.

*North Jersey Automobile Club, E. T. Bell. Jr., Secretary, Paterson, N. J.

*Automobile Club of Rochester, Frederick Sager, Secretary, 66 East Avenue, Rochester, N. Y.

Massachusetts Automobile Club, President, J. Ransome Bridge; Treasurer, Conrad J. Rueter; Secretary, L. E. Knott, 16 Ashburton Place, Boston, Mass.

Pennsylvania Automobile Club, Secretary, Henry J. Johnson, 138 No. Broad Street, Philadelphia.

*Philadelphia Automobile Club, Frank C. Lewin, Secretary, 250 No. Broad Street, Philadelphia, Pa.

Automobile Club of Bridgeport, Secretary, Frank W. Bolande, 208 Barnum Avenue, Bridgeport, Conn.

Rhode Island Automobile Club, Secretary, Frederick C. Fletcher, P. O. Box 1314, Providence, R. I.

Princeton University Automobile Club, Princeton, N. J. President, P. Adamson; Secretary, Charles H. Dugro.

San Francisco Automobile Club. B. L. Ryder, Secretary, San Francisco, Cal.

Columbia College Automobile Club, Lewis Iselin, Secretary, Columbia College, New York, N. Y.

*Buffalo Automobile Club, Secretary, Ellicott Evans, The Lenox, Buffalo, N. Y.

Worcester Automobile Club, Worcester, Mass., President, J. W. Bigelow; Vice-President, Edwin Brown; Marshal, W. J. H. Nourse; Treasurer, B. A. Robinson; Secretary, H. E. Shiland.

Automobile Club of Syracuse, Syracuse, N. Y., Secretary Frederick H. Elliott, 515 S. A. & K. Building, Syracuse.

AUSTRIA.

Budapest—Magyar Automobil Club 31 Musem Korül.

Innesbruck—Tiroles Automobil Club, Rudolph-Strasse 3.

Prague—Prager Automobil Club.

BELGIUM.

Antwerp—Automobile Club Anversoir, 34 r. Longue de l'Hopital; President, Baron de Bieberstein.

*Brussels—Automobile Club de Belgique, 14 Pl. Royale; Moto-Club de Belgique, 152 Boul. du Nord; Touring Club de Belgique, 11 r. des Vauniers.

Charleroi—Automobile Club de Charleroi, Hotel de Esperance.

Ghent—Automobile Club de Flandres.

Liege—Automobile Club, Liegeois, 2 r. Hamal.

FRANCE.

Amiens—Automobile Club de Picardie, 36 r. de La Hotoie.

Avignon — Automobile Club de Avignon.

Bordeaux—L'Automobile Bordelais.

Dijon—Automobile Club, Bourguignors Cafe Americanie.

Lyon—Bicycle et Automobile Club de Lyon; Motor Club de Lyon, 3 pl. de la Bouise.

Marseilles—Automobile Club de Marseilles, 61 r. St. Fereol.

Nance—Automobile Club, Lorrain, Thiers pl.

Nice—Automobile Velo, Club de Nice, 16 r. Chauvain.

*Paris—Automobile Club of France, 6 pl. de la Concorde; Motr-Club de France; Touring Club de France, 5 r. Coq-Héron.

Pau—Automobile Club, Bearnais Ave. de la Pau. President, M. W. K. Thorn.

Périgueux—Veloce Club, Perigourdin, Hôtel de Commerce.

Toulouse—Automobile Club, Toulousain Café Riche, pl. St. Etienne Société des Chaffeurs du Midi, 25 r. Roquelaine. President, M. Gay.

GERMANY.

Aachen (Aix la Chapelle)—Westdeutscher Automobile Club, Hotel Grand Monarque.

Berlin — Mitteleuropaischer Motor Wagen Verein, I. Universitatstrasse, Herr A. Klose; Deutscher Automobil Club, Liusenstrasse, 43-44.

*Deutscher Automobil Club, Liusenstrasse, 43-44. President, S. D. Herzog, Victor von Ratilin.

Dresden—Radfahrer-und Automobilisten Vereinigung: Dresdener Touren Club.

Eisenach—Mitteldeutscher Automobil Club; Motorfahrer Club, Eisenach.

Frankfort am Main — Frankfurter Automobil Club, Restaurant Kaiserhof.

Munich—Bayer. Automobil Club, 33 Findling Strasse.

Stettin—Erster Stettiner Bicycle und Automobil Club.

Strassburg—Strassburger Automobil Club.

Stuttgart—Suddeutscher Automobil Club; Wurtembergischer Motor Wagen Verein.

GREAT BRITAIN.

Birmingham — Motor and Cycle Trades Club, Corporation street.

Edinburgh — Scottish Automobile Club.

Liverpool—Liverpool Self-propelled Traffic Association, Colquitt street. Secretary, E. Shrapnell Smith.

*London—Automobile Club of Great Britain and Ireland, 4 Whitehall Court, S. W. Hon. Secretary, C. Harrington Moore.

Nottingham Automobile Club, Secretary, A. R. Atkey, Nottingham, England.

HOLLAND.

Nimegue—Nederlandsche Automobile Club.

ITALY.

Milan—Club Automobilisti Italiani 6 via Guilini.

*Turin — Automobile Club d'Italie Via Vittorio Amedeo II, 26.

RUSSIA.

Moscow — Moskauer Automobile Club, Petrowka, Hauschnow.

St. Petersburg — Automobile Club de Russe, President, M. Delorme.

SPAIN.

Madrid—Automobile Club de Madrid.

SWITZERLAND.

*Geneva — Automobile Club de Suisse, 9 boul. de Theatre.

THE AUTOMOBILE MAGAZINE

A Live Journal for all interested in Motor Vehicles

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Important Future Event

BY the time the next issue of the AUTOMOBILE MAGAZINE appears several very important automobile events will have taken place, and comprehensive results of them will appear in the October issue. The most important of these events is the 500-mile endurance test held under the auspices of the Automobile Club of America. This test, which starts from the Plaza at Central Park, New York, Monday morning, September 9, is destined to have a most beneficial effect on the general subject of automobiling. In this issue will be found maps of the total course with distances, towns, etc. Each map represents a control, there being two of these a day, noon and evening. Accompanying these maps is a general description of the whole course as furnished by the committee having the management of the test.

The largest and most prominent automobile manufacturers will have anywhere from one to five vehicles in the run. There will also

be many private owners. Outside of the interesting and important technical results, there is bound to be much personal sociability commencing from the time vehicles begin to congregate early on the morning of the start and continuing until the machines are gradually taken from Buffalo some days after the finish of the test. It is the intention of this magazine to spare no effort in laying before its readers everything about the run which will be advantageous to both the trade and the user.

Astor Lodge

NEW YORK CITY automobilists will probably by next summer have a fine objective point to run to a pleasant distance away from the noise and bustle of metropolitan streets, for Astor Lodge, the handsome road house and hotel, which is being erected by Col. John Jacob Astor, is planned to be completed then. This large structure 280 feet long and most of it four stories high will be situated on the Pelham Parkway, not far from the Williamsbridge road. It will be constructed in the French style of architecture of stone and wood. Around the site are 150 acres of land which will be laid out for golf links, tennis courts and other outdoor games.

On the first floor of the lodge will be a rotunda which will be as high as the main part of the house. There will be room for 1,200 patrons at table in the dining rooms, the verandas and summer garden. Those who wish may have their dinner under the shade of gayly colored umbrellas.

One of the features of the lodge will be the kitchen, a large room in which the patrons of the establishment may enter at will to view the culinary operations. The building will have its own electric light plant, its own gas, and its own refrigerating apparatus. There will be a station, where twenty automobiles may be charged and stored. In fact, it was Colonel Astor's inability to find any place in the suburbs where he and his friends could go with their motor vehicles and be sure of first class entertainment that induced him to plan the lodge which is to bear his name.

Newport Automobile Races

THE National Automobile Racing Association of Newport, R. I., will hold its second annual series of races on the Ocean Drive, Newport, Friday, August 30, at 2 p. m. The course will be 9 miles in length and will finish at the starting point at "The Crossways." Following are the events :

First Race—Once around the course for tricycles and two-wheeled vehicles. Two prizes.

Second Race—Once around the course for all classes of steam-propelled vehicles. Two prizes.

Third Race—Once around the course for electric racing machines. Two prizes.

Fourth Race—Once around the course for special class of De Dion 5 horse-power voiturettes in ordinary running trim. Two prizes.

Fifth Race—Once around the course for gasoline vehicles not developing more than 12 horse-power. Two prizes.

Sixth Race—Once around the course for gasoline vehicles developing over 12 horse-power. Two prizes.

Seventh Race—Once around the course for winners in all classes. Two prizes.

Prizes for these events are given by Mr. John Jacob Astor, Mr. and Mrs. O. H. P. Belmont, Mrs. Hermann Oelrichs, Mr. J. Livermore, Mr. Drexel, Mr. and Mrs. William K. Vanderbilt, Jr., Mr. H. O. Havemeyer, Jr., the National Automobile Racing Association and others.

The Association holding these races is a local affair organized last year to give races. Its officers are : William K. Vanderbilt, Jr., president ; Spencer C. Crane, vice-president ; George F. Baright, secretary and general manager. Its headquarters are "The Reading Room," Newport, R. I.

The races are held under the rules of the Automobile Club of America, but following are some extra bits of information sent out by the Association :

Competitors in the first, second and fourth races will start two at a time at intervals of fifteen seconds.

Competitors in the third, sixth and seventh races will start one at a time at intervals of thirty seconds.

The course is over the "Ocean Drive," a distance of nine miles, and the races are to finish at "Crossways" by four o'clock.

Special precautions will be taken to avert accidents. Policemen will be stationed at every corner and cross-road along the "Ocean Drive," and red flags will also be placed on the same side of the road as the road turns. These flags will be placed thirty yards from dangerous corners.

Sign posts will be placed at every road with a hand indicating the course to be taken by contestants.

All competing carriages are to be at the offices of the New York Electric Vehicle Co., 19 Downing Street, Newport, R. I., at 6 p. m., on Thursday, August 29, for registration and proper labeling.

The entrance fee for each vehicle is $15. Entries will be received until midnight, August 28, and should be sent to William K. Vanderbilt, Jr., or the National Automobile Racing Association, "Reading Room," Newport, R. I.

There is every prospect of this meeting being brilliant in several ways. Its racing promises to be good and its entries will represent the best class of automobilists in this country. Invitations have been sent to all members of the Automobile Club of America to compete and although very few of these are in a position to do so, chiefly because there are so few machines among them capable of really fast traveling, still there will be enough to bring out interesting competition.

The judges selected are J. Dunbar Wright, Arthur T. Kemp, Spencer C. Crane, Edward G. Haywood, Congressman Bell, O. H. P. Belmont and Henry Bull, Jr.

There has been an attempt on the part of some residents along the roads over which the races will be held to stop the contests on the ground of their jeopardizing public safety, but although at this writing the matter is still pending on account of some public officials endeavoring to question the decision of others who have given a favorable decision for the races, still the probabilities are that opposition will be overcome and the races will be held according to schedule. The sentiment at Newport is largely in favor of holding them and just what the objectors endeavored to gain is difficult to see. Newport is essentially a summer residence place, very little business being done in it and what little using the roads there is for trade between the hours of two and four P. M. when the races will be held would be a small matter compared with the great gathering the race will produce.

Last year the association held its events on a half mile trotting

track in Newport and although they served their purpose well by initiating the subject into Newport, they were not satisfactory in bringing out speed. This year, although there are some sharp turns in the course, some great speed ought to be shown, for there are straight away places long enough to enable an automobile to get into its greatest speed. Coming so soon before the road race of the Automobile Club of America will enable contestants to get a preliminary line on the doings of competitors, all of which will serve to increase their experience and to engender extra public interest in the big speed event following about five weeks later.

C. C. Bramwell's New Book

"THE Construction of a Gasoline Motor Vehicle," is the title of an interesting and useful book which has just been issued by Emil Grossman & Bro., of New York, publishers of the *Motor Review* and other trade journals. It is the story of a Gasoline Motor Vehicle from the time of conception to the hour of completion. Step by step the work progresses, each stage being accurately described and fully illustrated with strong, clean cut drawings—of mechanical correctness that could be used as working plans by any builder—until at last appears the finished vehicle. The book is not only valuable to experienced machinists, but to the general public as well. It will appeal to the mechanical expert, and will be clearly understood by the high-school boy, so well has the subject been handled.

The author is C. C. Bramwell, who has written frequently on this subject, and who is considered an authority. It is interesting to note that while the book is not a large one, it represents the cream of the information picked up by Mr. Bramwell in six years of study and experimental work. Part of this time was spent abroad familiarizing himself with the principle employed by the foreign manufacturers, thus permitting of an intelligent comparison of the various styles of machines.

It is a practical book whose mission is to teach the principles of gasoline motor vehicle construction—to point out the difficulties that may arise in the pathway of the builder, and show how they may be avoided. It is filled with points of information, any one of which to an interested party must be worth many times the cost of the book, which is $2.00.

After the Fast Trial

THE accompanying picture is characteristic of what generally takes place after an interesting performance has been done, whether it is polo, golf or automobiling. Friends of the one responsible for the fine play, record, etc., are generally eager to hear about it from the performer as soon as possible. This picture is of Albert C. Bostwick and his 40 horse-power Winton racer with his

Several Notables Talking it Over

mechanic alongside of him. Bernard M. Baruch, a member of the stock brokerage firm of A. A. Houseman & Company, is standing talking inquiringly with the owner of the speedy machine. Andrew L. Riker, Vice-President of the Electric Vehicle Company, and one of America's best known automobilists, is at Mr. Baruch's back, having given way momentarily while the latter wished to put a few special questions. Alan R. Hawley, a member of the Automobile Club of

America, happens to be at Mr. Riker's side, his hat just being visible over the steering wheel. The occasion was just after Mr. Bostwick sent this machine one mile in 1 minute 16¾ seconds around the track at Elkwood Park, Long Branch, the performance being fully described in the August number of the AUTOMOBILE MAGAZINE.

Deceived by Water Glass

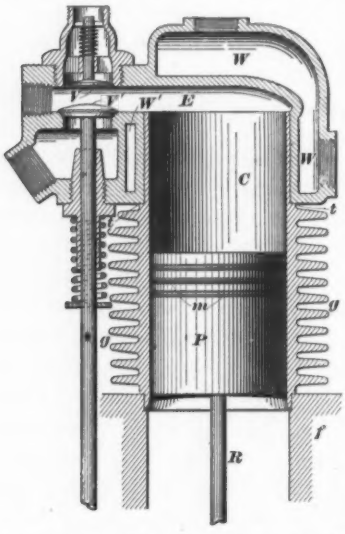
I HAVE a new steam machine, never mind the make, for my trouble would apply to any of them, and have been getting experience fast. Was coming home the other day and my water began getting lower and lower in spite of the pump being at work and the by-pass closed. When it got too low for comfort, I stopped, shut off my fire and tackled the auxiliary in the endeavor to raise that water level. Finally it came up in the glass, and came fast until almost full, when I started my fire up again, and—lo, the water disappeared! Turning out my fire again I pumped away to the amusement of the small boy and the detriment of my linen, until the water came bubbling back once again. To make sure my eyes hadn't deceived me, I opened a gage cock and again it vanished. I finally found the trouble to be that the strainer in the tank was clogged and the pump couldn't get water to put into the boiler, but what I want to know is where the water in the glass came from? There's another point, too. In relighting, I tried to run liquid gasoline into the cup under pilot lamp, but none would come, so I finally opened the pilot burner a trifle and touched a match to the opening and it went all right. If this is a regular thing why didn't my instruction book mention it?

DORCHESTER, MASS. FRANK A. FISHER.

[The water glass trouble was due to the strainer being clogged. The pump could only get air and this forced what water lay in the pipes up into the glass. Opening the gage cock let the air out and it dropped. This is one reason why the gage cocks are much more reliable than the glass, though not so convenient. The pilot burner was hot enough to vaporize the gasoline as it came out so that it did not appear as a liquid. Lighting it as you did was all right, and should have been mentioned in the instruction book.—ED.]

Edward T. Birdsall's New Engine

EDWARD T. BIRDSALL, of the Desberon Motor Car Company, has recently patented an explosive engine of rather novel construction. The head carrying the valves, is thoroughly water-jacketed and slips down over the cylinder for about one-third its length. The remainder of cylinder is provided with ribs for air cooling. The head and water-jacket cover the portion of the cylinder which receives the most heat so that the water and air together should give excellent results.



The feature of this construction is its economy. In proportion to the amount of water that is necessary for its proper working the results it gives are more than equal to those where the cylinder is totally jacketed. The accompanying illustration gives a sectional view of the patent. Mr. Birdsall's company recently moved in from New Rochelle to this city to a more complete factory at Twelfth Avenue and Fifty-first Street.

We have received several suggestions lately to the effect that it would be a good plan for the AUTOMOBILE MAGAZINE to enter into a combination of automobile publications for mutual benefit. We understand that there are quite a number of automobile papers that are suffering from inanity and are reaching out for a combination or other assistance to save them from dissolution. The AUTOMOBILE MAGAZINE is not in that condition. The proprietors are following the policy of making it the best publication of its kind in the field and if they cannot secure for it a living support they will abandon it. There are too many moribund automobile journals in the field now and the sooner several of them give up the ghost the better it will be for all automobile interests.

How Fournier Passes a Competitor

THE now world-renowned Fournier describes a thrilling sensation when passing a competitor in a road race. On account of the dense cloud of dust following an automobile at speed, the driver of one coming up from behind cannot see the automobile and can only tell by intuition where the vehicle is. Fournier says: "I drive right into the cloud and do not lose my direction on account of knowing certain movements in the vortex of dust. These dust cyclones look differently right in the wake of a vehicle from what they do at the side of it and I go by that. When within say 10 or 15 yards of the vehicle I wish to pass, the dust is so thick that it is almost dark, but when getting closer yet, I begin to see the dim outline of the vehicle in front. It would be useless to signal to him to give me room for he could not hear me, the combined rattling of motors, gears and chains of the two vehicles making a din that is inconceivable to one who has not been there. I have to take chances on there being a good road ahead and then I put on my highest speed and shoot past, entirely forgetting what I may meet in that several hundred feet that are traversed before I am in front. The dangerous time is when I am getting up alongside of him, for nothing can be seen of the road, but once up there or a little in front then the atmosphere gets suddenly light and I breathe free again."

Hub motors seem to be quite the fashion of late and there are several varieties either under way or in process of patenting. Of course, there is the Holson of Chicago, which, while it motes and steers better than one would imagine, can be dismissed as a novelty or—freak. Then there is the Hub Motor Equipment Company's device, with an electric motor in the hub, giving the power where you want it, without differentials or other annoyances. Richter and Eschler, of Camden, N. J., have just patented another and there is also a steam machine with the engines in the wheels. Then the "Tractobile," which is a new bidder for public favor, drives the steering wheels and apparently does it in good shape. This type of motor driver has much to recommend it and of course objections of its own as well. What the outcome will be will be watched with interest.

A New Steam Carriage

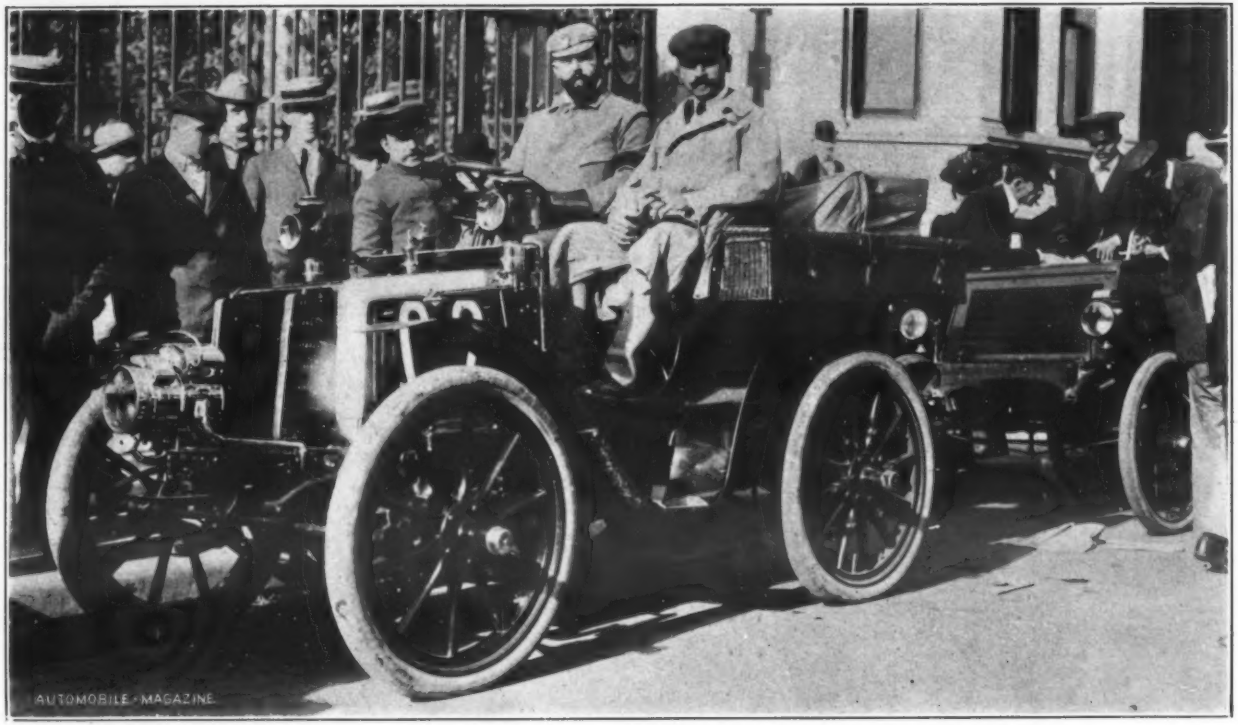
THE U. S. Mobile and Power Company, of Worcester, Mass., have begun turning out carriages which have several novel points and which appear to be very substantial machines. The boiler is of the water tube type, and presents a square appearance, the tubes being expanded into steel heads at each end. These heads are

Steam Carriage of U. S. Mobile and Power Company

square in outline and the sheets are about two inches apart. They are very solidly built up and should give no trouble from leakage.

The engines differ a little in general construction from the usual type but are well put up and present a neat and business-like appearance. The officers of the company are among the best known men in Worcester, whose names are a guarantee that these carriages will be well made in every particular and that everything will be conducted on business lines. The illustration gives an idea of the general appearance of the machines.

THE
JOHN CRERAR
LIBRARY.



President Albert R. Shattuck, in his 12 horse-power Panhard, ready for start in Automobile Club of America Endurance Test
Vice-President J. Dunbar Wright was his guest

THE AUTOMOBILE MAGAZINE

VOL. III OCTOBER, 1901 No. 10

The Endurance Test

THE 500-mile automobile endurance test held by the Automobile Club of America and scheduled to be from New York to Buffalo, was commenced Monday, September 9, at New York and finished Friday, September 13, at Rochester, the total distance traveled being 394 miles. The original plan was altered on account of the death of President Wiliam McKinley, Friday evening, September 13, the committee deciding to end the run then. As a result of the President's death the club also abandoned the week of automobile events which was to have been held at Buffalo, beginning, Monday, September 16, and which included the much looked forward to road race between Erie and Buffalo.

The committee having charge of this important and successful test was composed of William M. Power, chairman; Winthrop E. Scarritt and Harlan W. Whipple; S. M. Butler was secretary, and Walter H. Stearns was general manager for the outside part.

The result of the run represented about everything the committee had intended, it being, with its machine repairs, truly an endurance test. A ludicrous side of this feature was exemplified by the remark of a driver, that he considered the run an endurance test in every sense of the word, for so far as he was concerned he "had driven on his machine all day and worked under it all night." His experience was typical of many other machines, some being worked on, after reaching the evening control, way into the small hours of the night. This, however, was to be expected, for it would be impossible to have

seventy or eighty vehicles go on any kind of a run lasting over a day without some needing overhauling to a more or less degree after the first one hundred miles.

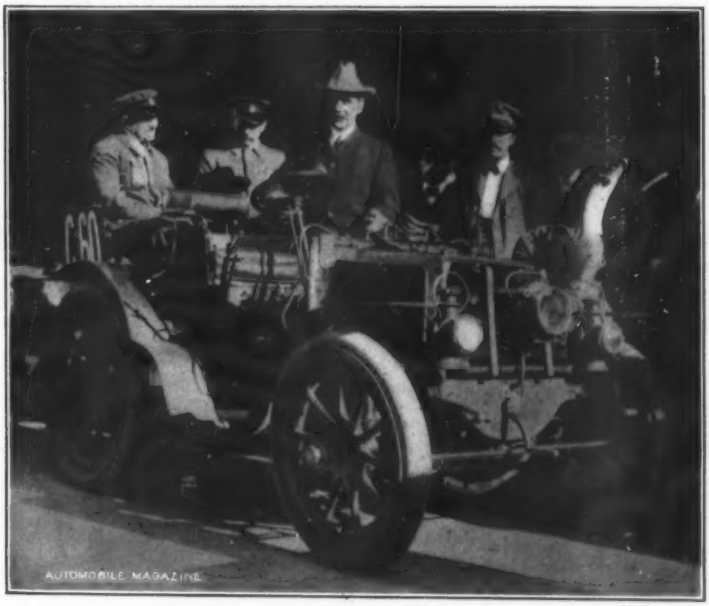
Some vehicles needed only the ordinary examination, adjusting and oiling, such as would be given to any good, healthy machine. Those which needed more than this can in some cases be called unfortunate, for they met with accidents which brought about injuries that were in no way the fault of design or construction. It was quite surprising that so many vehicles stood the test so well, for the conditions attendant upon smooth and easy running were simply execrable.

William M. Power, Chairman of Endurance Test Committee

Even had the weather been pleasant the test would have been a severe one, for the roads were, to say the least, rough. Their surface was not only in this state, but their general contour was up and down hill to such an extent that all features of running, such as using brakes under various exigencies, gears for long and short spells and quick steering, continually occupied the whole attention of the driver. Added to these rigorous conditions, the weather contributed an extra handicap on the third and fourth days, or virtually between Albany and Syracuse. It was nothing but constant rain between these two points, the roads being a quagmire. Not only was much ordinary discomfiture added to drivers as a result of the down-pour, but steering and

general manipulation of machines became so uncertain that a fairly straight course could not be kept. Machines veered from one side of the narrow roads to the other, and although in distance this did not mean a variance of over five or six feet, still at each extreme point the outside wheels were liable to quickly slide sideways three or four feet more, it all depending upon the slope of the road.

On certain parts of the route this skidding became a genuine menace, especially where the highway had been cut along the side of



"Red Devil" 12 Horse-Power Panhard
Harlan W. Whipple Winthrop E. Scarritt Jefferson Seligman Loie J. Harris

a hill and the bank on one side was high enough and steep enough to cause an automobile to probably be wrecked should it slide off the road down the slope. There were plenty of such places and several machines did meet with this mishap, fortunately though in places where the slope was not excessively steep or long. One of these machines involuntarily backed straight down into the field, carrying away the insecure fence. Its hind wheels had skidded so much at this part that they slipped sideways off the comparatively level, though

mushy, road and the front wheels being turned quickly toward the middle of the road, brought the total position at almost right angles to the road, with the hind wheels still slipping sideways and also downward. The brakes would not act with the wheels going backwards, and down the vehicle went fifty or sixty feet—a team of horses being necessary to get it on the road again. One who has only driven a carriage on an average country road cannot realize what it means when it is raining hard and the surface has been thoroughly softened by previous rains. It is perfectly safe to say that the majority of those who drove vehicles on this endurance run had their eyes opened as to what really adverse conditions are so far as muddy roads are concerned.

All the breakdowns, trying conditions and general misfortunes did the run good from a fraternal standpoint, and as predicted in the AUTOMOBILE MAGAZINE of last issue, the run was worth taking part in, merely from a goodfellowship standpoint if for nothing else. Some of the best known manufacturers and amateur automobilists undertook the journey, and more would have competed had they not wished to reserve their energies for the Erie-Buffalo road race which was to have been held the following week. Those who had set their hearts on this feature did not care to risk straining or breaking down their machines in a 500-mile run over rough country roads, and their decision not to do this was consistent with common sense, for no matter how good the machine was, it would have been sorely tried and more or less abused during that journey toward Buffalo. Among those who thus reserved themselves and their machines were Henri Fournier, Alexander Winton, Albert C. Bostwick, William K. Vanderbilt, Jr., and William N. Murray.

It would be easy to give a large list of many of the casualties that happened on the run, blaming this or that part of the machine's construction, etc., but such information would not be of material benefit to either the trade or user, simply because it is impossible to interpret the real cause of the break-downs. When a wheel or axle is broken it is difficult to say whether it was on account of faulty material or poor manipulation of the vehicle in running it against an object or in endeavoring to get out of an extra deep rut in the road. All that can be seen in such a case is the broken part, the driver alone knowing the circumstances, and in many cases he is not certain. If clutches fail to hold or brakes fail to act it is generally because the parts have either worn or stretched, as the case may be, the trouble being merely local.

Ignition was the usual bugbear, this being especially noticeable during the wet weather. This is such a deep subject that it would be idle to express any opinion on it without exhaustive handling. The machines the writer traveled on had comparatively no trouble in this regard. On one of these occasions F. Walsh, who drove the well-known Gasmobile entered by Albert T. Otto, found one of his three cylinders missing its spark just after leaving the morning control at Herkimer. He went several miles until, concluding the trouble had better be fixed, he gave the outside contact point a three-quarter

Riker 16 Horse-Power Gasoline Touring Car
Whitney Lyon Jefferson Seligman Robert Graves Andrew L. Riker

turn with the pincers while the motor was running, and the missing cylinder sparked properly.

The delay in this case was only about a minute, most of the time being taken in lifting up the front seat and putting it back again, but an ordinary user in such trouble might have gone on until it would have been necessary to lay up and then the machine would have been condemned. Mr. Walsh said that he had not touched the contact point of this machine for some time previous to the Newport races.

When it is considered what little alteration was necessary to produce perfect ignition it would be unfair to claim that the machine was at fault, in case of an amateur driving a vehicle under similar conditions and being obliged to stop, through ignorance of the subject. This incident tends to further prove that the modern high-class automobile is in the main satisfactory and can be relied upon if the driver is thoroughly cognizant of its workings. It is needless to say that self-propelling vehicles, like other machines, will never do as much for one who does not understand them as for one who does.

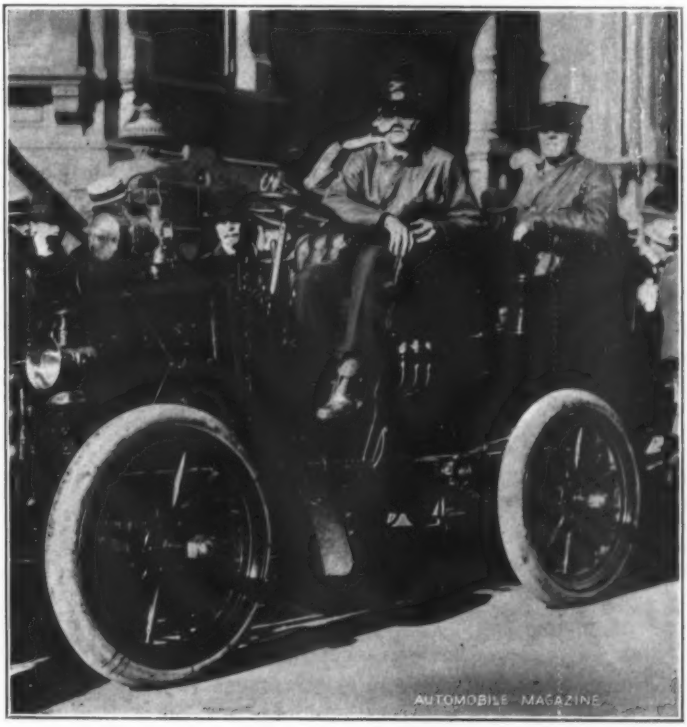
In being afforded opportunities for seeing the workings of this endurance test between controls the writer is indebted to the following well known representatives of automobilism whom he had the pleasure of riding with: Louis R. Adams, President of the Long Island Automobile Club, De Dion-Bouton Brooklyn type Motorette; Cornelius J. Field, De Dion-Bouton New York type Motorette; Edgar Apperson, Haynes-Apperson; Alexander Fischer and F. Walsh, Gasmobiles.

The start from the Plaza, New York, was not only picturesque but also impressive. Each vehicle of the eighty drawn up on either side of Fifty-eighth Street, and also in front of the Plaza Hotel, glided on as though a steely form of hitherto inert, impassive force were suddenly vivified into power, at the wave of the white gauntlet of Walter H. Stearns, the imposing master of ceremonies, accompanied by his clear, distinct word of command, "Go!"—at fifteen seconds' intervals. A silent salute from the owner, with hand raised to hat, in half military precision, and alternating from opposite sides of the street in turn, each individual part of this glowing whole rounded the curve up Fifth Avenue, on past the deep rows of spectators with a systematic conduct that lent a touch of magic to this latter-day spectacle of the acme of science.

It was truly the best collection of vehicles ever witnessed in this country. There have been expositions where many more were gathered together, but then the participants were inanimate, many of them only "picture carriages" displayed by firms to complete their exhibit. Here, however, congregated on this morning of September 9, were animate creatures instinct with mechanical life. Some had been tried for the journey, but those which were not completed in time to allow their makers to test them on the road came to grief, more or less, though since in most of these cases the manufacturers expected it, and were not altogether surprised or disappointed.

At the start the Robinson touring carriage was conspicuous, being driven by J. R. Robinson, Jr., he and his three companions, partly

on account of their numbers, making the most conspicuous show along the whole route. No matter what the weather was, they always seemed to preserve their equipoise, taking the trying conditions with a philosophical air that could not fail to cheer anyone speaking with them. During the rain they were all dressed alike in yellow oil-skins, and they and even their vehicle looked so symmetrical and generally shipshape on all occasions that the whole affair appeared like a pleas-



Robinson 16 Horse-Power Touring Car

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The club's president, Albert R. Shattuck, in his nickel trimmed

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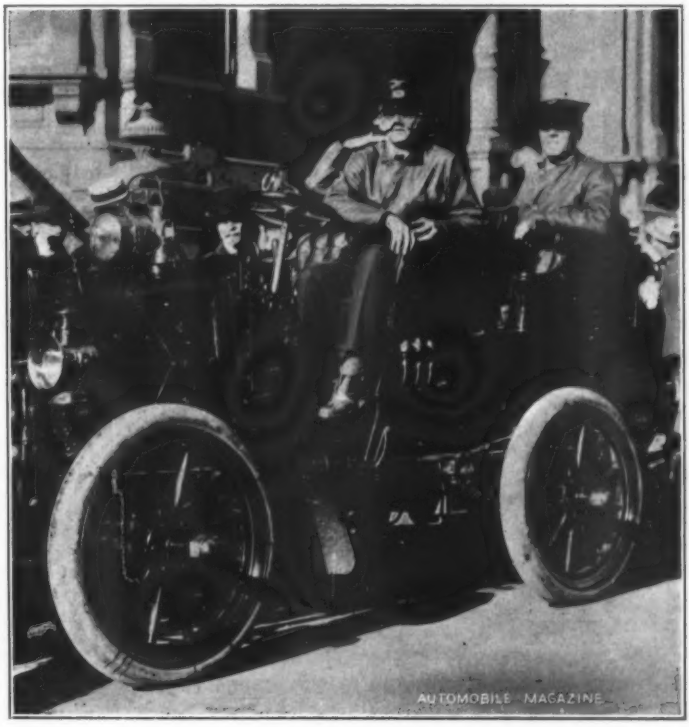

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Panhard-Levassor, took along, as a guest, the club's third Vice-Presiden, J. Dunbar Wright. A mechanic was aboard who preferred sitting in front at the side to occupying the tonneau, which was covered with an oiled cloth. The riding is not only easier for one occupying even that position, but the machine went better, and it also permitted the rear part to be protected from water and mud. Mr. Shattuck's vehicle was unquestionably the handsomest on the run ; and the way it proceeded at an even speed up and down hill, accentuated strongly the beauties of automobiling when the vehicle is good. The only time it disappointed its owner was near the top of Nelson's Hill, when two of the cylinders, according to Mr. Shattuck, acted strangely, and he then had to be towed up. He and Mr. Wright, as they went along over the roads, through the mud, passing and repassing different vehicles, looked as though they were at peace with the world so far as easy traveling was concerned. It was quite natural that Mr. Shattuck did not care to extol the good points of his machine too much, but his companion, who knows as much of that vehicle as the owner, felt freer to relate their experiences.

Mr. Wright said in substance : "I never appreciated what Mr. Shattuck's vehicle would do until this trip, although we have toured together in it for several thousand miles in France. It did not seem to make any difference when we left a control for we passed vehicle after vehicle before arriving at the next control, and Mr. Shattuck did not open her up at all. He simply took a gait that was consistent with the rough roads, and we went right along with no hitch whatever. The machine is equipped with a governor which, if used, will make the speed up an ordinary grade just the same as on a level. This is why we passed so many vehicles on hills, although we did not put ourselves out to do so. I am very glad to have had this experience on these roads, for although I have gone through such conditions before in America, still my vehicle was alone when doing so and I could not see how others were affected by it. Now I have seen how others fare."

Mr. Shattuck was one of the most active men during the trip and conferred with the committee continually. At Herkimer quite a mass meeting was held for the reception of the automobilists during the night control. A brass band of about forty pieces played in front of the hotels which harbored most of the contestants and which were almost opposite each other on the street, and Mayor Thomas addressed the assemblage on the subject of good roads and what the persevering

automobilists were doing to encourage building them. Mr. Shattuck, on behalf of the club and all automobilists, answered very appropriately, his remarks attracting the concerted attention of the throng. Mr. Winthrop E. Scarritt was also called for on this occasion, and made some brief and pointed remarks on the growing industry and good roads that struck home as decisively as did the two previous speakers' words.

Returning to those who were at the start at the beginning of the run, one could hardly fail to notice J. W. Packard and George L.

Louis Adams in 8 Horse-Power Brooklyn Type De Dion Motorette

Weiss, head officers of the Ohio Automobile Company, who drove together in a 12 horse-power Packard. These two well-known authorities derived about as much enjoyment from all phases of the run as any team could. They seemed to have an ecouraging word for everyone, and even though their carriage met with the misfortune of losing a tire and they were thus forced to go many miles on the rim of the rear wheel, they took their accident as genuine mechanics do and made the best of their bad situation until it could be changed. They were

usually near the front when coming into each control ; had a good vehicle and undoubtedly drove it well. In fact, all of the Packards did well.

Three others who drove Packards, John M. Satterfield, Doctor Truman J. Martin and A. L. McMurtry, made an excellent collective showing, even though the first was handicapped by a broken rear axle, which placed him completely out of the test until a new one could be put on. Doctor Martin, president of the Buffalo Automobile Club, and the driver of a noticeable 16 horse-power Packard, had his machine rigged as sort of an ambulance, but the fatalities happening to contestants were few and far between, and his services in

J. W. Packard and George L. Weiss in 12 Horse-Power Packard

this line were not needed to any extent. He was, however, around at the different stopping places making himself generally agreeable, and he thoroughly enjoyed every part of the run. During the rain he rigged the hind wheels of his vehicle in a clever way for the slippery roads ; the tires were covered with sole leather strips about two inches wide and about four or five inches apart. These strips passed crosswise over the tire and were fastened to two strips, which in turn were laced to the spokes near the rim. It prevented his machine from skidding, to a great extent, and it did not wear out as so many of the hurriedly arranged ropes around the rim and tires of other

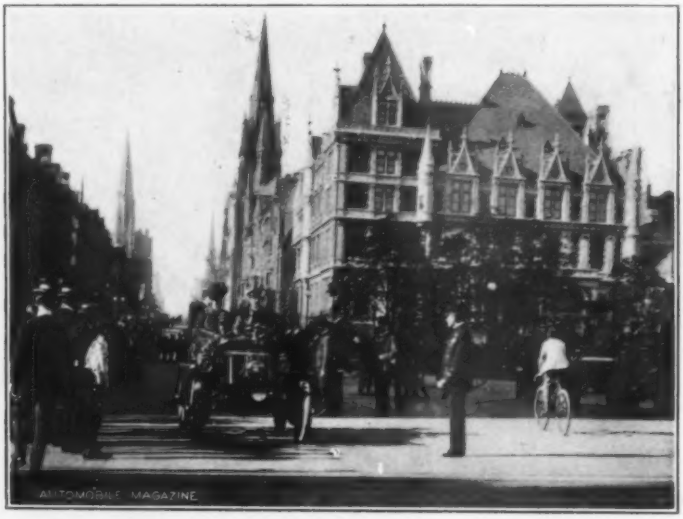
vehicles, and which cut through in a short time, leaving whirling ends to be taken off when they grew too troublesome.

A. Ward Leonard started in a Knickerbocker car and at 58th street looked as though he expected nothing to interfere with his getting through safely, but before even reaching Yonkers he met with a serious mishap in the shape of a bent or broken axle, and had to abandon the run. Robert P. Scott, who drove a Gladiator voiturette of French make, also came to grief near where Mr. Leonard did, and was forced to discontinue.

Robert P. Scott in 3 Horse-Power Gladiator Voiturette

Andrew L. Riker started in his 16 horse-power gasoline touring car, with Mrs. Riker, Robert Graves and a mechanic as passengers. The machine had just been taken out of the shop, in fact its completion was so much in doubt that Mr. Riker did not know until the last day whether he would start. Many were of the opinion that he showed considerable courage to take the untried machine on such a long and hard journey, but the owner was not concerned much over the probable fate he would meet. The machine started from the Plaza with its

handsome load of passengers and moved up Fifth Avenue, giving the general impression that there was nothing that could surpass it in ease of action and general style. Mr. Riker had not gone far before he saw that the machine's rear springs were altogether too light for the extra load of passengers and luggage. With the three people in front, the mechanic sitting on the floor, representing a weight of 560 pounds and Robert Graves and four dress suit cases occupying the tonneau, with other accessories of over 500 pounds, it can readily be seen that the total extra weight was considerable. New rear springs were put on at Albany, they having been telegraphed for and sent there; but



Mr. and Mrs. Andrew L. Riker leaving Plaza

later on, with the mud and rain, several bad short circuits were developed and Mr. Riker was forced to give up, the exact reason for his not being able to continue not being officially known. The plucky and determined way he tried to overcome adverse circumstances was remarked on by many, and the majority were hoping that he would be able to reach the destination.

The White steam machines proved to be surprises, especially to those who previously were not acquainted with their good points. Four of these vehicles started and all finished in good shape. Paul H. Deming, who with R. H. White acted as leader of their coterie,

remarked to the writer that had the performances of their machines been different, he would have been surprised. Mr. Deming made his debut East with one of his machines last Spring in an Automobile Club of America run to Tuxedo, and hung close for the thirty miles to Cornelius J. Field's De Dion racer. Those who remember his performance then are not surprised at the good showing the White quartette made on this later test.

The Pierce machines, with their De Dion motors of small power,

Paul H. Deming in 6 Horse-Power White Steam Stanhope

were among the novelties on the run, they taking their two passengers apiece along, as well as did the majority of the heavier and more expensive vehicles. This make will undoubtedly be heard from in the development of the extreme light class of gasoline carriages, and for the price they are listed at there is no four-wheel vehicle that can beat them for general service.

The Haynes-Apperson's did not attract very much notice from a spectacular standpoint, but they were absolutely unbeaten in point of

performance when lack of adjustment and lack of repairs are considered. The two Apperson brothers, Edgar and Elmer, came through with what might truthfully be called clean records. They easily maintained the desired speed, and their stops were hardly worthy of notice. One of their machines had a new steering knuckle put in, the break of the old one being foreseen by Edgar Apperson, who predicted to the writer that the steel casting would not last, but that the same pattern in a drop forging would do all that was required. It came out as he said. The Haynes-Apperson Surrey driven by Wm. H. Browning and carrying Mrs. Browning and one other passen-

Edgar Apperson in 8 Horse-Power Haynes-Apperson

ger, with the necessary luggage, did a performance proportionately as good as the two Stanhopes of the same make driven by the two above named experts. Mr. and Mrs. Browning went over the fearful roads and through rain in a style that showed they were fearless of the terrors of extreme jolting and constant splashing with mud and other corresponding inconveniences connected with a tour of this description. Mrs. Browning was the only woman who survived the journey, and she has made a name in adapting herself pleasantly to conditions that were enough to try the even tenor of masculinity.

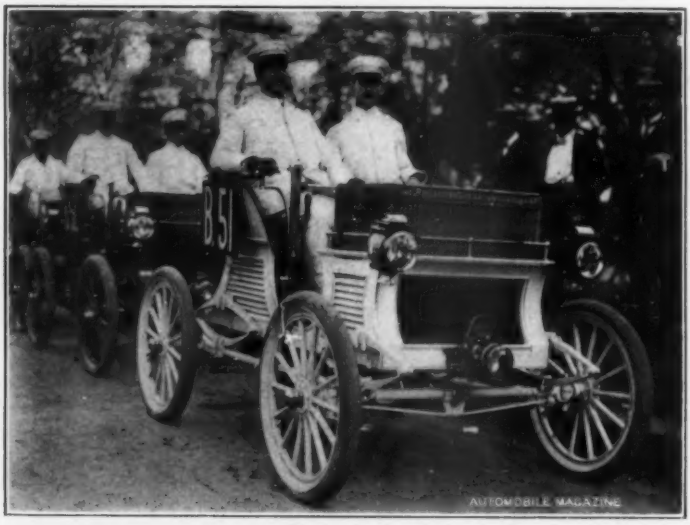
E. B. Gallaher with his three Searchmonts had the misfortune of breaking an important joint in his steering apparatus close to the hub, which made his own machine useless until a new part was obtained. The break showed a clean fracture completely across the one inch and one-eighth steel. One of his other machines was forced to relinquish the run, and the one that kept on was fortunate enough to meet with no accident that required anything that could not be taken from the stock in hand. Like Mr. Riker's machine, these Searchmonts were absolutely untested, and thereby suffered. They are strongly built,

Elmer Apperson in 8½ Horse-Power Haynes-Apperson

good appearing vehicles, and with more development should have a different experience on the next tour.

Bradford B. McGregor, in his 12 horse-power Winton, took as his guest Albert C. Bostwick. Neither one went on the run further than Albany, Mr. McGregor returning to New York on account of business engagements, and Mr. Bostwick continuing on to Buffalo by train, where he had sent his 40 horse-power Winton racer for practice over the Erie-Buffalo course. Mr. McGregor and David Wolfe Bishop who drove a 30 horse-power Panhard had considerable quiet sport in racing during the two days up to Albany. There was enough of this

feature to give the impression along the line that the endurance test was a race, but the bad effects of it were not lasting when it was seen at what a harmless speed most of the contestants traveled. Mr. McGregor's machine at Albany was taken by Percy Owen, who continued with it until meeting with several bad accidents, chiefly caused by skidding, which put the machine out of business. Mr. Owen's own machine had been driven up to Albany by H. L. Owesney, who came through to Rochester without the slightest mishap. It was not the one originally entered and was only 8 horse-power. Alexander



E. B. Gallaher in 12 Horse-Power Searchmont

Winton went on this machine during the first day and then left to go quickly to Buffalo to prepare for the road race there. It had been his intention to drive his 40 horse-power car in the endurance test but it was lost by the railroad company during its shipment to New York city and did not arrive in time.

David Wolfe Bishop, on account of always arriving first at controls, received a great deal of advertising by the daily press along the route. He did a good performance with his powerful machine, but he was armed *cap-a-pie* for the fray. He not only took a mechanic alongside of him but he sent two mechanics ahead so that they were waiting at the controls for him, they being reinforced with a kit of

tools which needed a box about 4 feet long and 3 feet wide to hold them. These two men went over the vehicle each night, adjusting it and putting it in the same shape each morning that the locomotives of the Empire State Express are generally in at the start of the journey. Mr. Bishop's elaborate preparation caused a rumor to easily gain credence that he had made some arrangement with the Panhard-Levassor Cie to represent them on the run, mostly on account of the two French mechanics who arrived in this country only a week before the start.

Colonel John Jacob Astor drove his Gasmobile to Albany with all

Bradford B. McGregor in 12 Horse-Power Winton

the zest which was necessary to land him at that control in the fourth position, he being headed only by Mr. Bishop, Mr. McGregor and Mr. Packard. The Colonel then discontinued the run, returning to his country place, letting his carriage be taken on by Alexander Fischer, who made a showing with it which reflected only credit to the owner, manufacturer and driver.

Cornelius J. Field was very much disappointed on account of his being unable to start his 15 horse-power DeDion Motorette, but like Mr. Riker's and Mr. Gallaher's machines it was completed only

a day or two before the start, and he concluded not to risk running it. The illustration shows some of the vehicles he started, and they had more or less vicissitudes. This was bound to happen on a run of this nature where many different drivers had control. His Brooklyn type, which the writer rode in with Mr. Adams, although the latter was not a contestant, merely going along to get some experience, furnishes as nice riding as anyone could desire. This type of vehicle should be a most popular one. It is similar in general shape to the foreign Darracq, Renault, and the domestic Knickerbocker.

The two committeemen, Winthrop E. Scarritt and Harlan W. Whipple, started in the striking looking "Red Devil," the Panhard, which at that time belonged to Mr. Whipple, but which has since been sold to A. L. McMurtry. Mr. Whipple's party went as far as Yonkers when, on account of breakdowns, he had to "break up" and come to Poughkeepsie by train. The committeemen then took turns in riding with different machines and arrived at Rochester, having passed through similar experiences to all. It was pleasant to have these two automobile enthusiasts at the controls, their presence lending an enjoyable atmosphere on all occasions.

At this writing no official figures can be procured regarding the result of the test, but the AUTOMOBILE MAGAZINE expects to lay before its readers full information on this part in the next issue. The following 41 vehicles arrived at Rochester in time for the control: C 55, C 23, A 47, B 5, C 24, B 80, B 12, B 78, B 70, C 31, B 35, B 13, B 86, A 11, B 4, B 28, C 2, B 32, C 77, B 14, C 79, A 37, A 72, A 8, C 1, C 30, B 34, B 81, C 65, A 82, A 75, A 63, A 38, C 56, C 18, C 59, B 27, B 22, B 20, B 39, C 61.

The De Dion-Bouton Group—J. Peck Cornelius H. Tangemann Kenneth A. Skinner Leslie Rand Cornelius J. Field

AUTOMOBILE CLUB OF AMERICA—ENDURANCE CONTEST.

NEW YORK TO ROCHESTER SEPT. 9–13, 1901—LIST OF STARTERS FROM NEW YORK.

*Entered but did not start.

Official Number.	Class, and General Description.	Name and Address of Manufacturer.	Entered by	Driven by	No. of Passengers, including Driver	Motive Power	Horse-Power.	Weight, including fuel supplies and equipment. Lbs.
1	C Touring Car	Robinson Motor Vehicle Co., Hyde Park, Mass.	J. R. Robinson, Jr.	J. R. Robinson, Jr.	4	G	16	2425
2	C Panhard Tonneau Body	Panhard-Levassor, Paris, France	A. R. Shattuck	A. R. Shattuck	2	G	12	2400
3	A Knickerbocker, No. 19	Ward-Leonard Electric Co., Bronxville, N. Y.	Ward-Leonard Electric Co.	A. Ward Leonard	3	G	5	700
4	B 2-Passenger Carriage	Haynes-Apperson Co., Kokomo, Ind.	Haynes-Apperson Co.	Edgar Apperson	2	G	8	1800
5	B 2-Passenger Carriage	Haynes-Apperson Co., Kokomo, Ind.	Haynes-Apperson Co.	Elmer Apperson	2	G	8½	1800
6*	D Motor Bicycle	Stratton Motor Bicycle Co., 7 Wall Street, N. Y.	Edmund F. Stratton	. . . . .	1	G	1¾	78
7	A Runabout	Geo. N. Pierce Co., Buffalo, N.Y.	G. N. Pierce Co.	D. Ferguson	2	G	2¾	590
8	A Runabout	Geo. N. Pierce Co., Buffalo, N.Y.	G. N. Pierce Co.	P. P. Pierce	2	G	2¾	590
9	D Motor Bicycle	E. R. Thomas Motor Co., Buffalo, N. Y.	E. R. Thomas Motor Co.	G. W. Sherman	1	G	1	95
10	A Gladiator—Voiturette	Clement, Paris, France	R. P. Scott	R. P. Scott	2	G	3	750
11	A Runabout	White Sewing Machine Co., Cleveland, O.	White Sewing Machine Co.	R. H. White	2	S	6	995
12	B Stanhope	White Sewing Machine Co., Cleveland, O.	White Sewing Machine Co.	A. J. Southworth	2	S	6	1350
13	B Stanhope	White Sewing Machine Co., Cleveland, O.	White Sewing Machine Co.	Morris Hughs	2	S	6	1350
14	B Stanhope	White Sewing Machine Co., Cleveland, O.	White Sewing Machine Co.	Paul H. Deming	2	S	6	1350

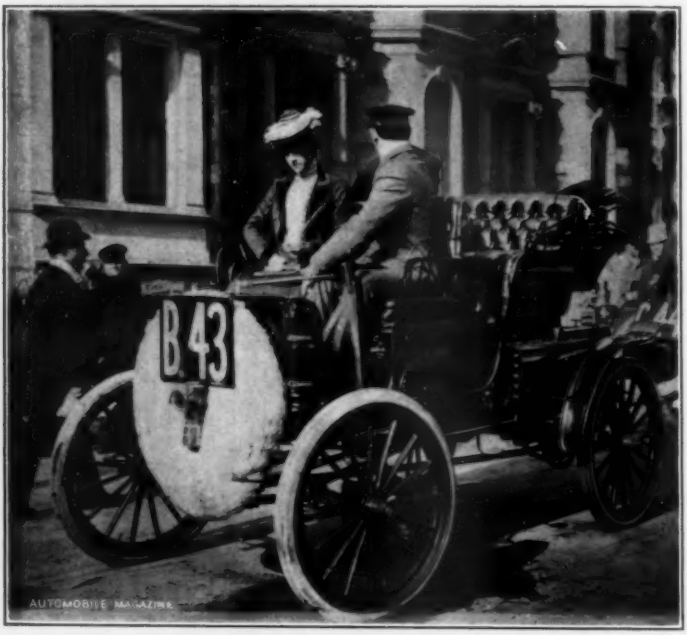
15	B Runabout	Overman Automobile Co., 81 Fulton St., N. Y.	Overman Automobile Co.	E. E. Degonin	2	S	6½	1200
16	B Runabout	Overman Automobile Co., 81 Fulton St., N. Y.	Overman Automobile Co.	D. E. Rienhard	2	S	6½	1200
17	E Light Delivery Wagon	Baldwin Motor Wagon Co., Providence, R. I.	Baldwin Motor Wagon Co.	L. F. N. Baldwin	2	S	7	2240
18	C Phaeton	Holyoke Automobile Co., Holyoke, Mass.	C. R. Greuter	Chas. R. Greuter	2	G	9	3000
19	E 3-ton Steam Truck	American Bicycle Co., Toledo, O.	Am. Bicycle Co.	A. W. Doe	3	S	20	7000
20	B Stanhope	American Bicycle Co., Toledo, O.	Am. Bicycle Co.	H. W. Curtis	2	S	6½	1550
21	B Stanhope	American Bicycle Co., Toledo, O.	A. R. Townsend	H. H. Lytle	2	S	6½	1450
22	B Semi-Racing Car	Winton Motor Carriage Co., Cleveland, O.	Alexander Dow	Alexander Dow	2	G	12	1700
23	C Packard, Model "C"	Ohio Automobile Co., Warren, O.	Ohio Auto. Co.	J. W. Packard and George L. Weiss	2	G	12	2100
24	C Packard, Model "C"	Ohio Automobile Co., Warren, O.	Ohio Auto. Co.	Wm. A. Hatcher	2	G	12	2100
25*	C Racing Car	Winton Motor Carriage Co., Cleveland, O.	Albert C. Bostwick	. . . . .	2	G	40	2600
26	B Semi-Racing Car	Winton Motor Carriage Co., Cleveland, O.	Bradford B. McGregor	Bradford B. McGregor	2	G	12	1600
27	B Autocar	The Autocar Co., Ardmore, Pa.	Louis S. Clarke	Louis S. Clarke	2	G	8½	1100
28	B 4 Passenger Surrey	Lane Motor Vehicle Co., Poughkeepsie, N. Y.	Lane Motor Vehicle Co.	O. K. Raymond	2	S	9.99	1650
29	C Phaeton	Automobile Co. of America, N.Y.	John H. Flagler	. . . . .	2	G	9	2100
30	C Surrey	Automobile Co. of America, N.Y.	Sid. Dillon Ripley	W. Owen	2	G	9	2100
31	C Phaeton	Automobile Co. of America, N.Y.	Albert T. Otto	F. Walsh	2	G	9	2100
32	B Semi-Racing Car	Winton Motor Carriage Co., Cleveland, O.	Percy Owen	Percy Owen	2	G	12	1700
33	B Phaeton	Winton Motor Carriage Co., Cleveland, O.	H. Rogers Winthrop	H. Rogers Winthrop	2	G	8	1700
34	B Gasoline Carriage	St. Louis Motor Carriage Co., St. Louis, Mo.	St. Louis Motor Carriage Co.	John L. French	2	G	7	1400
35	B Touring Wagon	Foster Automobile Mfg. Co., Rochester, N. Y.	Foster Automobile Mfg. Co.	S. D. Waldron	2	S	6	1400
36	A Runabout	Locomobile Co. of America, N.Y.	Loco. Co. of Am.	J. W. Page	2	S	3½	999
37	A Runabout	Locomobile Co. of America, N.Y.	Loco. Co. of Am.	—— Mitchell	2	S	3½	999
38	A Runabout	Locomobile Co. of America, N.Y.	Loco. Co. of Am.	—— Knowles	2	S	3	999

AUTOMOBILE CLUB OF AMERICA—ENDURANCE CONTEST (CONTINUED).

Official Number.	Class, and General Description.	Name and Address of Manufacturer.	Entered by	Driven by	No. of Passengers, including Driver.	Motive Power.	Horse-power.	Weight, including fuel supplies and equipment. Lbs.
39	B Large Runabout No. .02	Locomobile Co. of America, N.Y.	Loco. Co. of Am.	Thos. W. Clarke	2	S	4½	1100
40	B Touring Carriage	Locomobile Co. of America, N.Y.	Loco. Co. of Am.	R. S. Davis	4	S	10	1700
41	B Touring Carriage	Locomobile Co. of America, N.Y.	Loco. Co. of Am.	W. F. Murphy	4	S	10	1700
42	E Quick Delivery	Locomobile Co. of America, N.Y.	Loco. Co. of Am.	—— Ashley	—	S	10	1700
43	B 4 Passenger Carriage	Haynes-Apperson Co., Kokomo, Ind.	Wm. H. Browning	Wm. H. Browning	3	G	8	1850
44	C Dos a dos	F. B. Stearns & Co., Cleveland, O.	Hy. K. Browning	Hv. K. Browning	4	G	—	2000
45	A Open Stanhope	Grout Brotherss, Orange, Mass.	Grout Brothers	B. L. Wright	2	S	—	800
46*	C Mercedes	Daimler Mfg. Co., Cannstatt, Ger.	W.K. Vanderbilt, Jr	. . . . .	2	G	35	2400
47	A Open Runabout	Locomobile Co. of America, N.Y.	C. Arthur Benjamin	C. Arthur Benjamin	2	S	3½	900
48	B Autocar	The Autocar Co., Ardmore, Pa.	Wm. Morgan	Wm. Morgan	2	G	8	1050
49*	C Panhard	Panhard-Levassor, Paris	Dr. J. G. Lyman	. . . . .	2	G	12	2500
50	A Runabout	Geneva Automobile & Mfg. Co., Geneva, O.	Geneva Automobile & Mfg. Co.	W. K. Hadley	2	S	5	900
51	B Touring Car	Searchmont Motor Co., Philadelphia, Pa.	E. B. Gallaher	E. B. Gallaher	2	G	12	1500
52	B Touring Car	Searchmont Motor Co., Philadelphia, Pa.	E. B. Gallaher	L. P. Chadwick	2	G	12	1500
53	B Touring Car	Searchmont Motor Co., Philadelphia, Pa.	E. B. Gallaher	V. V. Torbensen	2	G	12	1500
54	B Runabout	Stearns Steam Carriage Co., Syracuse, N. Y.	Stearns Steam Carriage Co.	Henry L. Trebert	2	S	6	1300
55	C Panhard	Panhard-Levassor, Paris	D. Wolfe Bishop	D. Wolfe Bishop	2	G	30	2800
56	C Packard Model C	Ohio Automobile Co., Warren, O.	A. L. McMurtry	A. L. McMurtry	2	G	14	2400
57	B Touring Buggy	Milwaukee Automobile Co., Milwaukee, Wis.	Milwaukee Automobile Co.	. . . . .	2	S	2	1450
58	C Gasmobile	Automobile Co. of America, N.Y.	H. R. Taylor	H. R. Taylor	3	G	9	2500
59	B Gasmobile	Automobile Co. of America, N.Y.	John Jacob Astor	John Jacob Astor	2	G	12	2500

60	C	Panhard	Panhard-Levassor, Paris	Harlan W. Whipple	. . . . .	4	G	12	2200
61	C	Packard Model C	Ohio Automobile Co., Warren, O.	John M. Satterfield	John M. Satterfield	2	G	12	2150
62*	A	Autocar	The Autocar Co., Ardmore, Pa.	H. B. Baruch, M.D.	. . . . .	2	G	6	900
63	A	Phaeton (3-Wheel)	Duryea Power Co., Reading, Pa.	Duryea Power Co.	Harry Burhaus	2	G	8	900
64	D	Orient Motor Bicycle	Waltham Manufacturing Co., Waltham, Mass.	C. H. Metz	C. . Metz	1	G	2¾	175
65	C	Surrey	Century Motor Vehicle Co., Syracuse, N. Y.	C. R. Woodin	C. R. Woodin	4	S	9	2100
66	A	Knickerbocker No. 20	Ward-Leonard Electric Co., Bronxville, N. Y.	Ward-Leonard Electric Co.	C. W. Wridgway	3	G	5	900
67	D	Indian Motor Bicycle	Hendee Manufacturing Co., Springfield, Mass.	Hendee Manufacturing Co.	Oscar Hedstrom	1	G	1¾	85
68	B	Gasoline Runabout	Electric Vehicle Co., N. Y.	Electric Vehicle Co.	E. H. Cox	2	G	4.5	1675
69	B	16 H.-P. Touring Car	Electric Vehicle Co., N. Y.	Electric Vehicle Co.	A. L. Riker	3	G	16	1950
70	B	Touring Wagon	Foster Automobile Mfg. Co., Rochester, N. Y.	Foster Auto Co.	Park Densmere	2	S	6	1400
71*	C	40 H.-P. Racing Car	Winton Motor Carriage Co., Cleveland, O.	Alex. Winton	. . . . .	2	G	40	2500
72	A	H. P. Motorette	De Dion-Bouton Motorette Co, Brooklyn, N. Y.	De Dion-Bouton Motorette Co.	J. Louvenez	2	G	5	900
73	A	H. P. Motorette	De Dion-Bouton Motorette Co, Brooklyn, N. Y.	De Dion-Bouton Motorette Co.	. . . . .	2	G	5	900
74	A	H. P. Moterette	De Dion-Bouton Motorette Co., Brooklyn, N. Y.	Kenneth A. Skinner	Ken. A. Sninner	2	G	8	880
75*	B	15 H.-P. Motorette	De Dion-Bouton Motorette Co., Brooklyn, N. Y.	C. J. Field	. . . . .	4	G	15	1500
76	B	Stanhope	Steam Vehicle Co. of America, N. Y.	L. Schermerhorn	I. D. Lengel	2	S	6	1200
77	C	Phaeton	Automobile Co. of America, N. Y.	Alex. Fischer	Alex. Fischer	2	G	9	2100
78	B	Columbia Runabout	Electric Vehicle Co., N. Y.	J. Seligman	H. P. Maxim, Jr.	3	G	4½	1700
79	C	Packard	Ohio Automobile Co., Warren, O.	T. J. Martin	T. J. Martin, M.D.	3	G	16	2800
80	B	Columbia Runabout	Electric Vehicle Co., N. Y.	G. B. Pettingill	Geo. B. Pettingill	2	G	4½	1640
81	B	Stanhope	U. S. Long Distance Auto. Co.	F. E. Lewis, 2d	F. E. Lewis, 2d	2	G	7	1500
82	A	Runabout (3-wheeled)	Knox Auto. Co.	Knox Auto Co.	F. H. Fowler	2	G	4	700
85	B	Voiturette	Darracq et Cie.	J. Peck	J. Peck	2	G	6	1020
86	B	Hydrocar	American Bicycle Co., Toledo, O.	M. H. Winters	M. H. Winters	2	G	—	1780
87	D	Regas Motor Cycle	Regas Vehicle Co., Rochester, N. Y	J. H. Sager	J. H. Sager	1	G	1½	110
88	D	. . . . .	. . . . .	George D. Green	George D. Green	1	G	2¼	160
89	D	Regas Motor Cycle	Regas Vehicle Co., Rochester, N. Y	J. H. Sager	W. L. Stoneburn	1	G	1½	110

The hill-climbing contest on Nelson Hill was the only part of the whole route where the management was not up to standard, the trouble being that too many vehicles were allowed on the hill at one time. The total distance of this control, which was timed separately, was 2,914 feet, the main slope between surveyed points being 2,372 feet. The extra 542 feet was prefixed to the slope so as to give vehicles a distance on which to gather momentum. The total rise in the 2,372 feet was 226 feet, which showed a little over 10



Mr. and Mrs. Wm. H. Browning in 8 Horse-Power Haynes-Apperson Surrey

per cent. grade. Parts of the incline were 5 and 6 per cent. steeper than this. The surface of the hill had been greatly improved over the way it has been for years. All the loose stones and also much of the loose sandy surface had been taken off. The artificially made ridges, generally known as "thank-you-ma'ams," had not been touched, but they did not hinder the ascent of any vehicle, except those that were unfortunate enough to slow up just as the crest of one of these miniature extra hills had to be taken. These parts would have given much

trouble to vehicles descending this slope at speed on account of the abrubt side facing them, but any vehicle could have taken them the reverse, or uphill way, at even more speed than most of them did, on account of the ascent presenting the easy side of these "thank-you-ma'ams."

Although this was termed a "hill-climbing contest," it would have been a little more appropriate to have called it an obstacle race with an extra handicap of being run uphill. The slope itself was enough of a barrier to give drivers considerable apprehension as to getting through safely, but the stalled vehicles made greater obstacles.

The mix-up of carriages on the hill was caused by the attendants not signaling properly with the flags that divided the course into seven blocks. On account of the hill not being straight these blocks were necessary to show the managers at the bottom when the course was clear far enough ahead to justify allowing a vehicle to start. The signal men at the intermediate portions had red and white flags accordingly, but they were either inexperienced at using them or else they misunderstood or could not see the upper flag signals. They were supposed to take their signals from the top of the hill, causing the signs to be worked down toward the foot. It was done in this way. If at the top the course were ready, the first block from the top displayed a white flag, which was in sight of the one who held the signal for the second block, this latter being in sight of the one who signaled for the third block, and so on down, the blocks being divided according to the curves of the road and the large overshadowing trees, which made it difficult to see for much distance, even if the road were straight. It can readily be seen that by the time the seventh block received the signal down the line from the first block, many seconds would elapse. If a vehicle became stalled half-way up, the signalman of the block just below it was forced to use his own judgment concerning whether the vehicle constituted an obstruction great enough to justify showing a red flag.

Most of these signalmen were natives of the adjacent rural country, and they either did not know how or they were in no position to use any brains in doing their duty, for it was but a little while before their services were almost useless. The vehicles that started later had about as much chance in getting through without being impeded whether or not signals were displayed, for those having the flags in charge became so confused with the quickly changing orders and signs that there was no concert in their actions. There were

times when the second block displayed a red flag, meaning that a stoppage had occurred there, when several blocks below there was a stoppage of three or four vehicles, which precluded all possibility of anyone getting by ; then the second block stoppage would be cleared and the white flag would again appear, but no vehicles came up, simply because they could not get around the stalled ones. The fifth and sixth blocks, the ones below the bad stoppage, were also blocked on account of the displayed red flags stopping vehicles which had already started on the incline.

To make matters worse, it may be mentioned that brakes in some cases proved to be unreliable in preventing the vehicles from running backward down the hill when the power was insufficient to make them go forward. Very few vehicles were equipped with a pick, a pointed piece of iron trailing behind, which takes hold on the ground, when the vehicle starts to go backward. In many cases, bystanders helped contestants by wedging stones under the rear wheels, and there were plenty who jumped from their carriages and did all necessary pushing to get over the worst spots. It is safe to say that all carriages that consumed more than 7 minutes in getting up, had troubles of one kind or another, lack of power, failure of the clutches to hold, or too heavy a load.

To sum the situation up briefly, it may be said that the hill was alternately clear and completely blocked five or six times, and the vehicles that happened to get a clear road, or not be sufficiently impeded to interfere materially with their time, should be called lucky. The only proper way to manage a contest of this kind where the course is crooked and narrow is to have only one vehicle on it at a time. This would mean the consuming of a great deal of time, but it is the only correct way. As it was, when starting vehicles as often as possible, consistent with signals, there was in some cases considerable delay at the start, an instance of this being the time the winner of Class A was forced to wait, which was about half an hour. If the course had been given up alone to each vehicle and they averaged five minutes apiece from start to finish, including signaling back from the top for the next one to come on, this contest would have taken about four hours to finish for forty-seven vehicles competed.

The method of timing this contest was the same as that used in timing between controls, viz.: Records of the time when the vehicle started and finished were made and the difference between them was the actual time consumed in negotiating the journey. The vehicles

commenced arriving at the hill control a little after noon, the first at the scene being President Albert R. Shattuck in his stunning looking Panhard. There was some delay at the start, not so much though as happened afterwards during the middle part of the contest on account of blockades on the hill. Mr. Shattuck started with his pick dropped behind and took the first part of the grade steadily. He went over several bumps in a matter-of-fact way and everything seemed to be

Henry K. Browning in Stearns Gasoline Dos-a-dos

doing well until he struck some of the lighter grades above, when he stopped on account of a derangement in the working of two of his four cylinders. He subsequently had to be towed up. Next to him came Charles G. Wridgway, in a Knickerbocker, but it became stalled at the first steep grade and badly impeded a steam vehicle. The fourth was A. L. McMurtry's Packard, which took the whole grade in good shape, going around the several stalled vehicles easily, they not making enough of an obstacle to cause trouble. Then came the steam surrey

of the Lane Motor Vehicle Company, closely followed by the winner of Class A, the Grout Brothers' Steam Stanhope. Then came several of the White Steam Stanhopes, and in a few minutes the hill was alive with contestants.

It can readily be seen that a stoppage or even a slight slowing down of the leaders on such a narrow road would be apt to end in complete stoppage of those following. It would be impossible to determine the merits of all claims of interference in this contest, they being so numerous that it would be useless to try to find witnesses who knew enough about the subject to determine which vehicles were absolutely retarded through no fault of their own. One instance mentioned to the writer shows the philosophy with which some probably took their mishap. Edgar Apperson says that a vehicle backed down on him before he could get out of the way, and although the collision was not hard, still it was enough to make him come to a dead stop, and many seconds were lost in his backing away and getting up momentum again to go around the one in trouble. "But," as Mr. Apperson said, "I did not make a formal protest because there were others more seriously impeded than I, and besides I did not wish to consume any time or thought on the subject, for I started in the whole contest to get to Buffalo in good shape, the hill climbing being only a side issue."

Although it made no difference in Mr. Apperson's case, an opposite condition exists with one machine that lodged a formal protest, this being a locomobile driven by J. Murray Page, which was but two seconds behind the best time in its class. Mr. Kingman of the Locomobile Company claims that two of his carriages in Class A were impeded from 20 to 50 seconds, and as their official times were 2 minutes 47 seconds and 3 minutes and 49 seconds respectively, it can be seen that had there been no impediment the results would have been quite different.

This hill climbing contest for the heavy class was won by David Wolfe Bishop, in the remarkable time of 2 minutes 13 seconds, which shows an average of just about 17 miles an hour for the total distance. There was no part of the hill which was taken by Mr. Bishop at a less rate of speed than 10 miles an hour, for he passed most others just as though they were not competing, and at one part he was compelled to do unusually clever steering on account of almost being pocketed, he being forced to cross from ditch to ditch on each side four times in a short space of about 200 feet in length to get away from stalled vehicles.

Birdseye View and Profile of Nelson Hill

When it is remembered that he did this at a rate of speed of about 12 miles an hour his dexterity can readily be imagined. He did not suffer from impediments on the hill as much as some of the others, it being a mere coincidence that there did not happen to be a complete block on the slope while he was running up. When Manager Stearns saw the threatened stoppage just as Mr. Bishop entered the foot of the hill at a speed of about 25 miles an hour he made a special effort to clear the way. Had it not been for this there would have been a complete mix-up of vehicles three-fourths of the way up and Mr. Bishop would have had to come to a dead stop, as half a dozen did. Mr. Bishop's vehicle went over the "thank-you-ma'ams" in a way that caused its wheels to land on the upper hollow side with a jump that would have wrecked the springs and axles of many an automobile. This winner told the writer that he could not have taken the hill any faster, even if he had had a clear road, the artificial ridges preventing his doing so.

The speed Mr. Bishop showed is remarkable when the slope is considered, and it was faster than even the most sanguine automobilist had dared to predict. The winner of the next weight class was William Morgan, on his Autocar, his time being 3 minutes 17 seconds. The winner of the light class was the steam Stanhope made by Grout Brothers and driven by B. L. Wright, his time being 2 minutes 45 seconds. A good many of those who drove steam vehicles up the hill made the mistake of racing hard for the preliminary 500 feet, thereby somewhat reducing their steam pressures just before commencing the arduous part of the distance. It is questionable whether the time they gained in the first 500 feet made up for the time lost on the 2,300 feet.

On this point the opinion of Mr. Wright, the Class A winner is interesting, he giving the writer a few facts concerning his steam pressure and how it varied. He started at the beginning of the preliminary 500 feet with 300 pounds pressure, but by the time he reached the foot of the hill his gauge registered 280 pounds, having lost 20 pounds in the insignificant distance of 500 feet. Mr. Wright says it was not because he raced to the foot of the hill that caused his pressure to go down so much, but as he was forced to wait for about half an hour at the start, his engine grew cold and much steam was condensed and wasted accordingly.

During the journey up the slope Mr. Wright had a comparatively free course. It was not so good as though there had been no vehicles on it, for he had to go around a number before reaching the top, but

he was not impeded to the extent that some were. At the top or end of the hill climbing control his steam gauge registered 180 pounds, but after traveling for ten minutes the pressure went back to 300 pounds.

SUMMARY OF NELSON HILL CONTEST.

(Steam = S. Gasoline = G.)

CLASS A.	Passengers.		Horse-power.	Weight, Lbs.	Time. M. S.
A 45 Grout Bros.	2	S	—	800	2 45
A 36 Locomobile	2	S	3½	999	2 47
A 63 Duryea, 3-wheel	2	G	8	900	3 16
A 38 Locomobile	2	S	3½	999	3 48
A 47 Locomobile	2	S	3½	960	4 2
A 37 Locomobile	2	S	3½	990	4 10
A 73 De Dion-Bouton Motorette	2	G	5	900	4 59
A 11 De Dion-Bouton Motorette	2	G	6	995	7 2

Jefferson Seligman in 4½ Horse-Power Columbia Gasoline

	CLASS A.	Passengers.		Horse-power.	Weight. Lbs.	Time. M. S.
A 75	De Dion-Bouton Motorette	2	G	5	880	9 40
A 66	Ward-Leonard Electric Co.	3	G	5	700	10 40
A 72	De Dion-Bouton Motorette	2	G	5	930	11 58
	CLASS B.					
B 48	Autocar	2	G	8	1200	3 17
B 39	Locomobile No. 2	2	S	4½	1280	3 55
B 54	Stearns Steam Carriage Co.	2	S	6	1470	4 02
B 4	Haynes-Apperson	2	G	8	1910	4 35
B 32	Winton Semi-Racer	2	G	12	1700	4 38
B 86	Am. Bic. Co. "Hydrocar"	2	G	—	1780	4 50
B 28	Lane Motor Vehicle Co.	2	S	10	1600	5 00
B 78	Columbia Mark VIII.	2	G	4½	1800	5 31
B 80	Columbia Mark VIII.	2	G	4½	1640	5 40
B 5	Haynes-Apperson	2	G	8	1940	5 41
B 50	"Geneva"	2	S	5	900	6 00
B 12	White Sewing Machine Co.	2	S	6	1350	6 00
B 52	Searchmont	2	G	12	1500	6 06
B 16	Overman Auto. Co.	2	S	6½	1270	6 10
B 27	Autocar	2	G	8½	1150	6 12
B 81	U. S. Long Distance	2	G	7	1520	6 21
B 15	Overman Auto. Co.	2	S	6½	1200	7 29
B 21	Toledo Stanhope	2	S	6½	1450	8 09
B 13	White Sewing Machine Co.	2	S	6	1350	8 15
B 14	White Sewing Machine Co.	2	S	6	1350	8 33
B 76	"Reading"	2	S	6	1200	10 53
B 20	"Toledo"	2	S	6½	1630	11 41
	CLASS C.					
C 55	Panhard-Levassor	2	G	30	2500	2 13
C 59	Columbia Mark VIII.	2	G	5	1900	3 44
C 56	Packard (A. L. McMurtry)	2	G	14	2410	3 50
C 31	Auto. Co. of America	2	G	9	2240	5 22
C 30	Auto. Co. of America	2	G	9	2230	5 45
C 65	Century Surrey	4	S	9	2100	5 50
C 77	Auto. Co. of Am.	2	G	9	2100	5 52
C 44	F. B. Stearns & Co.	—	G	—	2000	6 03
C 61	Packard.	2	G	12	2350	6 20
C 18	Holyoke	2	G	9	3300	7 00
C 79	Packard	3	G	16	2350	8 15
C 58	Gasmobile	3	G	9	2410	9 12
C 29	Auto. Co. of America	2	G	9	2100	9 42
C 2	Panhard-Levassor	2	G	12	2550	16 40

The prizes for this contest were silver cups presented by Winthrop E. Scarritt, Class A; Harlan W. Whipple, Class B, and Albert R. Shattuck, Class C.

The Irish Tour

IT has been voted that the Irish tour, which was arranged by the Irish Automobile Club in conjunction with the A. C. G. B. I., and which left Dublin on the morning of the 8th of August last, was an absolute success in most respects, though some of the English contingent failing to materialize and dropping out when and where they wished, on account of the difficulties presented by the Irish roads, caused trouble at the hotels and disappointment to the public. Most of these, too, cut short the tour at Kilkee on the 16th, making a rapid cross-country trip via Limerick and Kilkenny back to Dublin, but they brought back with them a most enthusiastic report, retaining very pleasant impressions of Ireland and placing some notable achievements to their credit.

There were two ladies among the English party who went intrepidly through all the astounding feats accomplished by the cars, and who have thus enjoyed experiences that very few other women motorists will probably go through at present. To their credit be it told that they took even a keener delight than the men in facing the adventures which were encountered.

The route and miles run each day on this Irish tour are as follows: 8th, Dublin to Waterford, 99¼ miles; 9th, Waterford to Cork, 81; 10th, Cork to Killarney, 95½; 11th, Killarney; 12th, Killarney to Waterville, 59¼; 13th, Waterville to Killarney, 40; 14th, Killarney to Limerick, 87½; 15th, Limerick to Kilkee, 55½; 16th, Kilkee to Galway, 90; 17th, Galway to Recess, 47¾; 18th, Connemara; 19th, Circular run, 64¾; 20th, Lunane to Ballina, 67¼; 21st, Ballina to Sligo, 37; 22d, Sligo and Enniskillen, 74¾; 23d, Enniskillen to Dublin, 104¼. Total mileage, 1,003¾—in 15 days.

The impressions of E. J. O'Reilly (*The Motor News*) in embarking on this, his first, motor tour, are conveyed with such keenly humoristic rendering that by quoting some bits from it I feel I am obeying the Salvation Army song to "let a little sunshine in,"—the mind of the American motorist being mostly devoted to the serious side of the sport; small wonder is it, too, considering the difficulties mechanical, and antipathies personal, that block his way:

"I have enjoyed what I reckon must be motoring *in excelsis*, the

very sublimated quintessence of the thing. This, I fear, may possibly spoil me for all future experiences of a similar nature ; but what matter? Let us mote, mote, and be merry, for to-morrow we die ! When my friend, Mr. Charles Jarrott, with such laurels as become a man who had licked all but seven of the big crowd of competitors in the Paris-Berlin race still green upon his brow, offered me a seat in his magnificent little 7 horse-power Panhard, I said to myself that it was the chance of a lifetime. I had not the smallest fear of an accident, but I was somewhat afraid I could not swallow seventy miles an hour of air without the certainty of spontaneous combustion, or whatever the illness is that besets one in such case.

"Mr. Jarrott and his Panhard filled the bill with almost mathematical precision. And so, I flatter myself, we were not the least of the observed of all observers on the unforgettable morning of the 8th instant, as we panted off from the Shelbourne Hotel in all the pride and grace of our virile, youthful beauty (I even hoped I might be mistaken for Jarrott). Our car was painted yellow, and caught the eye—in addition to several other things. Our pace was such that we quickly overhauled those who had got off before us, and I could feel the car throbbing and trembling as though eager for the fray. Soon we took a wrong turn, and here I had my first impression, which was deepened by subsequent experience. No self-respecting motorist will ask the way if he can possibly help it ; and when he does, he won't even slow up —let alone wait—for the answer. They all do it. They were born that way and simply cannot help it. During the tour I had experience of several drivers, and I noticed that the peculiarity was common to all. A motorist of any dignity will take a détour of 30 miles rather than slow up, or down, to be told the way to go. Once I firmly grasped that this peculiarity was the badge of all their tribe I yelled about a mile in advance at the approaching wayfarer ; but then they either did not hear me at all, or only when we were on them, and by the time they got the answer out we were a mile and a quarter away. If the place had a long name we were usually in the next township before I got the whole of it out, and we had passed out of their lives before I could finish it."

Scenes at the Start of Endurance Test

The Automobile Trials at Glasgow

By ALEXANDER F. SINCLAIR

THE trials held by the Automobile Club of Great Britain and Ireland, sometimes written as A. C. G. B. I., with the coöperation of the Scottish Automobile Club and under the auspices of the Exhibition Council, concluded on Saturday, September 7, with a grand procession of vehicles round the University Athletic Ground, and certain tests of steering and trials of speed. The latter would probably be vulgarly denominated races by the usual patrons of the grounds, but "trials of speed" certainly sounds more dignified and is more in keeping with the title of the club.

The trials began on Monday, September 2, and lasted throughout the week. The contesting vehicles were divided into two sections, the first being those entered by manufacturers or their agents, the second those entered by private individuals. Section one was sub-divided into seven classes; four of these being for petrol or steam cars, arranged according to price, and one class each for motor cycles, delivery vans and electric vehicles. A third section consisted of parts of vehicles, the entries to which, however, were confined to tires and ignition apparatus.

There were forty-three entries in the first section, sub-divided as follows: Class A, cars not exceeding £250 in value, 18; Class B, value £250–£350, 9; Class C, value £350–£500, 6; Class D, value over £500, 8; Class E, motor cycles, none; Class F, delivery vans, 1; Class G, electric vehicles, 1. Of the forty-three the Motor Manufacturing Company, Ltd., entered a 6 horse-power voiturette, 6 horse-power 2-cylinder light carriage, 6-seated car and 6 horse-power 1 ton delivery van. The Daimler Motor Company, Ltd., entered two 6 horse-power light cars and one 18 horse-power car. The Wolseley Company of Birmingham, entered two 10 horse-power and one 5 horse-power vehicle. Other vehicles entered were a 6 horse-power and 10 horse-power Mors, and 4½ horse-power Renault by the Roadway Auto Car Company, Ltd.; two C. P. C. cars by George F. Milnes & Company, Ltd.; one 7 horse-power car by the New Orleans Motor Company of Twickenham; two Bardons by the Auto Carriage Company, Ltd.; two Locomobiles by the Locomobile Company of America;

two Humbers, one 5 and another 8 horse-power; Napier, 9 horse-power, by the Motor Power Company, Ltd.; 5 horse-power light steam carriage by the Clarkson & Capel Steam Car Syndicate, Ltd.; car of 5 horse-power by Wilson & Pilcher, Ltd.; and 7 horse-power light Panhard by Panhard & Levassor; 5 horse-power Decauville by the Motor Car Company, Ltd.; Argyle voiturette by the Hozier Engineering Company, Ltd., Glasgow; 5 horse-power carriage by Parr & Company, Leicester; 4½ horse-power voiturette by De Dion-

A Locomobile Van

Bouton, Ltd.; Lanchester carriage by the Lanchester Engine Company, Ltd., Birmingham.

A 14 horse-power Teras or Gobron-Brillie by W. T. & S. E. Botwood, Ipswich; Century tandem by the Century Engineering and Motor Company, Ltd.; Progress car by the Progress Cycle Company, Ltd., Coventry; 8 horse-power Arrol-Johnston 6-seated car, and an Arrol-Johnston dog cart by the Motor Car Syndicate,

Ltd., Paisley; 4½ horse-power Parisian phæton, and an open entry, which was not utilized, by Stirling's Motor Carriages, Ltd., Hamilton; Touring Car by Durham, Churchill & Company, Sheffield; 6 horse-power Royal Enfield by the Enfield Cycle Company, Ltd., Redditch, and an electrical car by the British and Foreign Electrical Vehicle Company, Ltd.; 2 Star carriages, regarding which no information has been vouchsafed. The privately owned vehicles included two Napiers, one Serpollet, two Panhards, three Daimlers, one Albion, one Arrol-Johnston, and one New Orleans. The entries for section three consisted of two sets of tires—one by the Dunlop Pneumatic Tire Company, Ltd., and the other by the New York Tire Company—and three sets of ignition apparatus, an "Auto Sparker," a governed dynamo by the Motor Manufacturing Company, Ltd.; the Dawson magneto-electric ignition by Henry T. & Harry A. Dawson, Canterbury, and the Simms-Bosch magneto-electric ignition and interruptor-timing-gear by the Simms Manufacturing Company, Ltd.

"Reliability (not speed) is to be the Essence of the Trial," is the reading of a heading to a note preceding the rules of the contest given in the official programme. Further on the note says: "The Trial is open to tourist cars only. Racing cars will not be admitted. Racing and other cars capable of attaining very high speeds present so great a temptation to drivers to drive at speeds which might well be interpreted as defiance of the law that they are a danger to the movement in this country, and may be the means of bringing about injurious restrictive legislation." All of which is very true, for in this conservative country we take unkindly to any new thing, and the more unaggressively it is introduced, the faster will it attain to public favor.

The A. C. G. B. I. has a mission to popularize automobilism in this country, and to secure the relaxation or repeal of existing unduly vigorous enactments regarding speed on highways, and it is making considerable headway in its self-appointed task. On the present occasion it induced the Scottish Secretary of State to issue an order permitting a speed of twelve miles an hour, an increase of two miles an hour over the previous limit. When one considers that the cars on some occasions during the trials exceeded twenty miles an hour, the advantage of such a moderate concession may not be apparent, but it may be explained that in the mind of a rural policeman a concession of two miles by the Scottish Secretary would probably mean more than the mere figure signifies. Anyhow no Highland policeman—and most Scotch policemen are Highland—would inter-

fere with a contest in which a Lord Justice-Clerk of the name of Macdonald took part. His lordship is president of the Scottish Automobile Club, and notwithstanding his ripe age took an active interest in the progress of the trials.

The trials consisted of five daily runs from one point, the aggregate distance being over 500 miles, and three tests of hill climbing speed, which were, however, eventually reduced in number to two. For the daily run a maximum of 300 marks could be earned, but deductions were made at the rate of one mark for every minute at which the car was at rest between the starting and finishing points, except when the stoppage was caused either by

Stop for luncheon (compulsory),
Traffic,
Tire trouble,
Accidental détours.

Hill climbing marks were awarded according to the following formula.

$$\frac{\text{Speed} \times \text{Number of passengers}}{\text{Price}} \times 1000$$

The vehicles had to be delivered into the custody of the A. C. G. B. I. officials at the storage building, Kelvinhaugh Street, Glasgow, on Friday, August 30, and from that time until the evening of Saturday, September 7, while they remained in the competition, they were in the charge and under the continuous observation of the club representatives or employés. Stringent rules were enforced to prevent any car having defects being remedied without the knowledge of the club officials. An observer rode on each car and took an exact account of its running.

Leaving the storage sharp at eight o'clock on Monday morniag, the run was to Edinburgh *via* Holytown, Bathgate and Broxburn and back *via* Biggar, Lanark and Hamilton, distance 116½ miles. Although less imposing from a scenic point of view than some of the subsequent runs, many of the places passed on Monday have extremely interesting historical associations. But what cares an automobilist on trial for history or its associations? With his eyes keenly alert to any movement or change of direction in front, and his ears opened to their widest holding capacity to catch any change of tone in the "innards" of his machine, his attention is sufficiently occupied without worrying about dead and gone caterans, or the places they lived and prayed in.

The outward journey is over a fairly level road after the first

fifteen miles, which is through the black country of Scotland, with a good surface most of the way, the highest point, about 700 feet, being reached by easy gradients. The return journey, however, is somewhat hilly, with a poor surface in parts and an extreme altitude of about 1,000 feet. Forty-one of the vehicles completed the journey, but many had dropped a considerable number of marks. Class C made

H. Ward Leonard in 5 Horse-Power Knickerbocker

the best showing on this occasion. Only five vehicles of the class started and only one (Panhard 287) failed to get the full number of marks. The reverse was the case with Class A, only four out of fourteen securing the maximum. The successful four were the Motor Manufacturing Company's Voiturette, the New Orleans, the Argyll, and the De Dion. In Class B the successful and unsuccessful were equal, three out of six getting full marks. They were the Motor

Manufacturing Company's Light Carriage, the Light Daimler, and the Arrol-Johnston. In Class D the Mors, the 16 horse-power Milnes, and the Napier got the maximum and three others failed to reach it. The Motor Manufacturing Company's Delivery Van ran 76¼ miles in 9 hours, while the Electrical Carriage covered 52 miles, with 2 stops, on one charge, and 48 miles, with 1 stop, on another. Each day the run terminated in the Exhibition grounds where the vehicles were on view till dusk, when they returned to the storage, one of the Corporation Tramways' stables, for the night.

On Tuesday the run was alongside the river and estuary of the Clyde to Ayr and back to Glasgow *via* Kilmarnock, distance 107¾ miles. This was a visit to the "Land of Burns," as the district is named in this country, many of the places passed—notably Ayr, Irvine, and Kilmarnock—having been connected with the life of the national poet. The roads for this day's run were the best, for a whole day during the trials. At no point on the outward journey does the road rise 200 feet above the sea level and only at three points does it attain to 100 feet. Although on the return journey there is a short ascent after passing Kilmarnock, with a rise of 600 feet in 8 miles, the incline is fairly regular and the surface is so good that notwithstanding the brae it is a favorite road with cyclists.

The highest point, just over 700 feet, is reached about twelve miles from Glasgow, whence a road with a surface like a cycle track descends regularly to the suburbs of the city. On Tuesday Class A improved on its first day's record, five of the cars getting full marks. These were the Renault, New Orleans, Argyll, De Dion and Stirling vehicles. In Class B only four finished, and of these only the Motor Manufacturing Company's light carriage got the maximum. Although all five in Class C completed the run, only two, the Wolseley and Arrol-Johnston, secured the possible. Of the five that finished in Class D, the Mors, both Milnes cars and the Napier got the total marks. On this day the delivery van ran 107¾ miles in 9½ hours, while the electric car ran 69 miles on one charge without a stoppage.

Should the ghosts of Roderick Dhu, Bailie Nicol Jarvie and Rob Roy be permitted to haunt their lifetime scenes in daylight—a distinct violation, I admit, of the canons of ghostly conduct—they must have been sadly upset on the 4th of September; and if ghosts have nerves—there is nothing positively known to the contrary—it is conceivable that they would execute a frantic skip of a few miles when they beheld the *teuf-teufs* go tearing through their country.

Wednesday's run to Callander via Stirling and back via Aberfoyle and Drymen included the first of the hill-climbing tests. The day's run of 99½ miles was over roads which vary from hilly and rough to dead level with a beautiful surface. The hill climb began a mile past Lennoxtown, about eleven miles out, and extended over three miles, with a rise of 843 feet in that distance. The Locomobiles led the way at this point, the steam giving considerable advantage, but both were beaten in points by the De Dion, while the New Orleans got more marks than the less successful of the two, the figures being: De Dion 131, Locomobile 20–128, New Orleans 127, Locomobile 19–120.

The long strain told severely on the petrol cylinders of many cars, the water heating with consequent expansion and stiffening of pistons. At the conclusion of the day's run, it was found that fifteen out of the twenty-five which finished had secured the possible marks for reliability. They were the Motor Manufacturing Company's car, the Wolseley, the Renault, the Argyll, the De Dion, and Stirling in Class A; the Motor Manufacturing Company's car and the Arrol-Johnston in Class B; the Motor Manufacturing Company's car, the light Panhard and Arrol-Johuston in Class C; and the Daimler, Mors, 16 horse-power Milnes and Napier in Class D. The Delivery Van ran 99½ miles in 12¼ hours, and the Electrical Vehicle covered 44 miles on one charge and 12 miles on a second.

On Thursday the Stirling district was again the scene of operations. The route was by Stirling and Dunblane, keeping the Ochil hills on the right to Blackford, then right turn and cross the Ochils by Gleneagles to Dollar, thence to Stirling and back to Glasgow *via* Kilsyth. The roads are fairly level, and although the surface is nowhere of first grade, neither is it actually rough. The second hill-climbing test occurred at Gleneagles, where the road rises 422 feet in something under 2½ miles, the steepest part being about 6 per cent. The New Orleans car, which was third on the previous day, took first place on this occasion with 221 marks; the De Dion coming second, 44 behind, with 177 marks; while the Motor Manufacturing Company's 5 horse-power car was third, with 170 marks. Twenty-five cars again completed the run, but only twelve succeeded in getting the maximum number. They were the Motor Manufacturing Company's 5 horse-power car, the Renault, the Argyll and Stirling's phæton in Class A; only the Arrol-Johnston in Class B; the Motor Manufacturing Company's car, the Wolseley, the light Panhard, and the Arrol-

Johnston car in Class C ; and the Mors, Napier and Teras in Class D. The Delivery Van ran 96 miles in 11 hours 7 minutes, but the Electric Car was out of it for the day.

On the concluding day of the trials proper the run was a straight 60 miles into the highlands to Tyndrum *via* Helensburgh, Arrochar, Tarbet on Loch Lomond, and Crianlarich ; then back *via* Tarbet, Luss and Alexandria to Glasgow. On the whole the roads are good although in some places somewhat narrow and rough. There is not as much hill-climbing as the nature of the journey might lead one to to expect, but at one point, Whistlefield hill, the road rises nearly 300 feet in a mile. This was originally intended to be one of the hill-climbing tests, but for some reason which was not given it was abandoned. However, while it was decided that the speed climb should not be compulsory for the purposes of the trials it was made optional for vehicles to attempt it and arrangements were made as usual to take the times, but as no marks were announced and they really have no bearing on the results of the trials they may be left out of account.

Only twenty-one cars accomplished the full journey, and of these but eleven secured the maximum number of marks. They were the Motor Manufacturing Company's car, the Wolesley, the Decauville, and the Argyll in Class A ; the Arrol-Johnston alone in Class B ; the Motor Manufacturing Company's car and the Arrol-Johnston in Class C; and the Mors, the 16 horse-power Milnes, the Napier, and the Teras in Class D. The Delivery Van ran 73¾ miles in 9 hours 55 minutes, and the Electric Car covered 59½ miles on one charge.

Only the Argyll in Class A, the Arrol-Johnston in Class C, and the Mors and Napier in Class D secured the maximum for the five days of 1,500 marks, while the 7 horse-power New Orleans had the best record for hill climbing, with an aggregate of 348 marks for the two days.

Particulars of these and other cars, with certain pious and moral reflections on their conduct and misconduct while under trial, must remain over for another month.

The Maltby Runabout

THIS is one of the lightest little machines we have seen, weighing about 400 pounds, and having a double cylinder four horse-power, air cooled gasoline motor. The motor is horizontal, with vertical valves to insure seating and even wear.

Upton or Empire transmission gear is used, giving two speeds ahead and reverse. The ignition is jump-spark with Edison sealed batteries for current. A large muffler of special design reduces the

Maltby Gasoline Runabout

noise of exhaust. With a tank capacity of 200 miles and no water for cooling, they have about as little to need attention as a machine can have. Wheels are 28-inch wire with pneumatic or cushion tires; side steering is used; leather upholstery to suit purchaser.

Mr. Maltby, Matawan, N. J., the manufacturer, informs us that one of these machines was recently run 80 miles at high speed to test the efficiency of the cooling of motors. It proved that the compression was not perceptibly affected and that the machine ran as well the last mile as the first.

The cut shows it to be a neat little runabout for those desiring a light vehicle.

The Latest Searchmont Carriages

THREE of their latest-type machines were finished just prior to the starting of the Buffalo run, and in fact they had not been "tried out" until the run itself except for a little adjusting preliminary to shipping to New York from the factory in Philadelphia. Two of these carriages are shown in the accompanying illustration and their striking appearance will be noted; the white suits of Mr. Gallaher and his associates are also something of a novelty.

12 Horse-Power Searchmonts

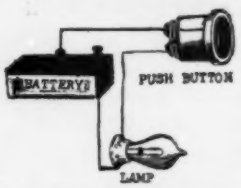
These carriages present several new features over the regular machine. These are, however, in the nature of improved modifications rather than decided innovations. They are the first of the Searchmont carriages to have wooden wheels and a continuous rear axle while the change-gear box is also placed lower in the frame, making the whole machinery arrangement a little more compact. The improved speed or clutch lever is retained, and this appeals to many on account of its simplicity and ease of control. It is impossible to

reverse the motor by mistake and this very often avoids stripping gear teeth. The clutches, by the way, are the only ones we know of which are without leather or other facing. These are simply cast-iron surfaces and run in oil, but are so controlled as to be easily and yet positively engaged. The oiling of these machines is easily and thoroughly accomplished as most of the machinery runs in oil. As with all the inclosed machines, the crank-case oil needs renewing at intervals of 25 miles or thereabouts. The means for accomplishing this are a generous oil tank and an air pump which gives the required amount of oil at one stroke. This can be done while running, so that there is no need to stop the carriage for anything except to renew gasoline—say every 200 miles—should one care to ride as far at one sitting.

These vehicles are very roomy, yet are small in appearance, and are making friends in many quarters. The high power of the carriage, two 6 horse-power motors, makes it equal to any work it may be called on to do.

A Steam Vehicle Convenience

THE illustration shows a small electric light outfit, which is being placed on the market by A. L. Dyke, of St. Louis, for steam rigs which are operated after dark. The push button is placed near the throttle lever on the arm of the seat. The battery, which is very small and weighs only about 2 pounds, is screwed underneath the seat. The lamp, which is contained in a small, porcelain socket, is screwed at the top, back of the water gauge. The push button, battery and lamp are connected by a small wire, and when the button is pressed a light reflects in the mirror and shows the exact amount of water in the gauge. Mr. Dyke offers the entire outfit, including lamp, socket, battery and wire, small double pointed tacks, the push button, and everything complete, ready for attaching, at a very low figure.



The Newport Races

THE second race meet of the National Automobile Racing Association of Newport was held at Aquidneck Park, Newport, Friday, August 30. It had been the intention of the association to hold the meet on several of the highways in Newport proper, the chief road to be used being Ocean Driveway. The association circulated a petition in favor of the road races some weeks before the

Infield Near Judges' Stand

selected day, and received signatures of the great majority of property owners along the roads to be used. In addition to this there was almost a unanimous sentiment all over Newport that the races should be held on the public highways. In response to this feeling the city council granted permission to hold the races on the roads selected, subject to proper police surveillance. There were, however, a few people, residents along the selected roads, who did not approve of the idea of turning the public thoroughfares into a race track even for such an insignificant time as three hours once a year. Among the objectors were estimable people, and although the stand they took was a most

unpopular one and brought on them much adverse criticism, still they not only had the law on their side but in several ways their protest was not so narrow-minded as it seemed to be.

In speaking seriously with several of the objectors as to the true inwardness of their opposition, it was learned that ever since the public roads had been chosen for the races dozens of automobilists, most of whom had no intention of competing in the races, had commenced using the selected roads as a place for holding speed trials, with the result that a horseman never knew when an automobile would come upon him at a rate of speed anywhere from twenty to forty miles per hour. If only intending competitors had used the highways for speeding it would not have been so bad, for their numbers were insignificant ; but according to general report almost everyone in Newport, including visitors, who owned a self-propelling vehicle, commenced to use the selected roads for testing their machines weeks in advance of the race day.

It was also learned that had the objectors been a little more diplomatically handled, enough of them might have been won over to favor the races on the roads ; but the executives of the National Automobile Racing Association felt so confident the protests would not take on the strength which they eventually showed, that they went ahead and made arrangements for the road races and almost completely ignored the feelings of those who had at first refused their sanction. Then the objectors proceeded in an organized way and obtained a court injunction restraining the promoters from using the highways as planned.

It was just as well, so far as a showing of speed was concerned, that the races were not held on the drives, for in the proposed 9-mile circuit there were three or four bad turns which would have made it necessary to slow down very materially, so much so that some time would have been taken up before full speed could again be resumed on the straights. Ocean Drive, the most picturesque part of the proposed course and that having the best road surface, would have been an excellent place to try speeding on—up and down slight grades and around a few short turns having a radius large enough not to necessitate slowing down much. But taking the course as a whole, just as much speed can be shown on the comparatively small half-mile track that the races were held on, although the complete change was a disappointment to all who had expected a finer day's sport than was served to them.

It was not known until three days prior to August 30 that Aquidneck Park would have to be used, but it was then quickly put in shape. The course was scraped, but on account of not having been much used, there were tufts of grass on it which the scraper could not dislodge without making a hole large enough to offset the advantage gained by getting rid of the grass. It had been announced that the track would be sprinkled in order to lay the dust ; this, however, was not done and it resulted that there was dust galore. The atmosphere was brown with it, and just why the track was not watered and thereby

Clarence Gray Dinsmore and Foxhall P. Keene in Latter's 50 H.-P. Mors

made more pleasant for everyone concerned is difficult to understand when other arrangements were so complete. Too much water on such a course would have resulted in more skidding by the machines around the turns than did take place on the loose, dusty surface, but a little water would have helped the general speeding, especially so on the part of competitors who were not so fortunate as to be the leader and were thereby more or less blinded.

The only competitor of note who did not take part was Albert C. Bostwick, who was so disappointed at the races being transferred to a

half-mile track that he shipped his 40 horse-power Winton back to New York the day before the races. No one can blame him for feeling this way, since the contests for such large machines as his would have been more or less of a scramble had the competitors been closer together than proved to be the case. The risk of accident on such a sized track with big machines is great enough to debar anyone from competing who values his machine or his life. If, for instance, two such machines as Mr. Bostwick's Winton were about even in entering a turn, both would be forced to slow up before they could get

William N. Murray and Frederick G. Bourne in Former's 40 H.-P. Winton

around the curve safely. It does not need much stretch of imagination to determine what would be the result in the case of two such machines meeting in such a coincidence. Neither driver would feel like slowing up, fearing that the other would continue with full power for a second or two longer, and the result is that if the inside one skidded a little more than usual—as would surely be the case if full power were left on—its wheels would be locked with the other vehicle, and there would be a fine mass of overturned, tangled metal, going at anywhere from forty to fifty miles per hour.

If the machines did not come together, one or both would go off the outer side of the curve, or capsize if the driver made too much of an effort to hold the turn. As is afterwards explained, none of these big machines were let out to their fullest extent. Racing under such conditions should not be honored by that term. The traveling is merely a matter of negotiating the turns as expertly as possible, and otherwise feeling the way almost for the full distance. The driver is in a constant state of uncertainty as to whether the machine should be slowed down at all, little or much. At best, such traveling can be called

Louis Stern's Son in Panhard

more or less experimental, little of the race feature existing so far as its being a true showing of speed.

The afternoon's sport interested most of those assembled, for the speed shown was great enough to open the eyes of whoever had been unfamiliar with automobile racing. The attendance was very large, completely filling the stands, and gathering along the course on the infield to make a solid mass around the important points. The infield was filled with equipages of all kinds, both horse and horseless. The picture entitled "Infield Near Judge's Stand" gives a good idea of how

coaches and drags were lined up, making fine places to view the races from. In this picture are Bradish Johnson, William K. Vanderbilt, Jr., in the foreground, walking toward the course, Foxhall P. Keene, who can be recognized by that celebrated hat he wore, he standing at the fence between the grass and the course, looking at the latter, and Oliver H. P. Belmont and Theodore Havemeyer on the coach. At this same part of the infield at times were other notables, including Chauncey M. Depew and Frederick G. Bourne.

Wm. K. Vanderbilt, Jr., in His DeDion-Bouton Voiturette

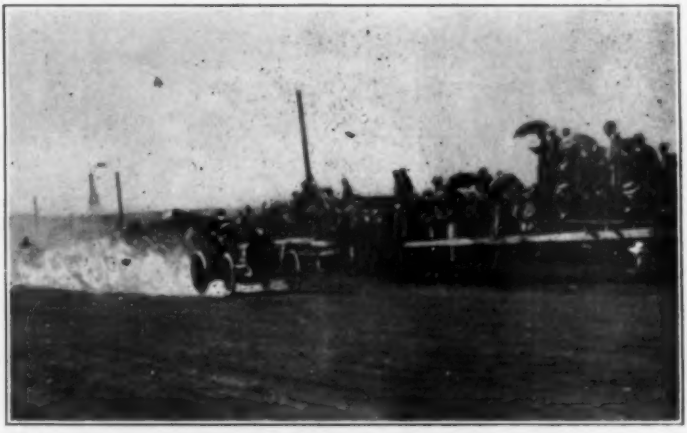
The judges and timers were Victor Sorchan, J. Dunbar Wright, Albert C. Bostwick and Arthur T. Kemp. All races were started by pistol shot with machines at a standstill.

The races opened with a 3-mile contest for bicycles and tricycles. It was won by Kenneth A. Skinner on a De Dion-Bouton tricyle in 5 minutes 40 seconds. G. M. Holly on a gasoline bicycle was second and U. G. Scott on a gasoline bicycle did not finish. During the first mile of this race it seemed as though the eventual winner would not be anywhere near the first at the finish, this state being caused by the

failure of his machine to spark properly, but after a mile and a half had been passed Mr. Skinner showed by his actions that the difficulty had been fixed and his machine went ahead and took the lead in a fashion that clearly showed its superiority. Then the result of the race was never in doubt.

The 3-mile race for electric vehicles resulted in rather a fizzle on account of its slowness, no time being taken. It was won by Lispenard Stewart with Dennison Hatch second.

The special 3-mile race for De Dion-Bouton motorettes resulted in a win for Oliver H. P. Belmont's vehicle, it being driven by the owner's chauffeur. Wm. K. Vanderbilt, Jr., was second. Kenneth



Wm. K. Vanderbilt, Jr., Racing in His Mercedes.

A. Skinner was third. Augustus Jay and John R. Livermore, who also started, did not finish. Time, 7 minutes 35¼ seconds. This race created a great deal of interest on account of the published names of the drivers being well known. A glance at the accompanying picture entitled "Infield Near Judges' Stand" reveals Mr. Belmont reclining carelessly on the middle seat of his drag. This is where he was when some of the crowd were cheering him, he supposedly being on his vehicle as it led the others in the race. Mr. Vanderbilt did start in this contest, the picture entitled "Wm. K. Vanderbilt, Jr., in his De Dion-Bouton Voiturette" representing him as he was waiting back of the starting line. The chief of the Newport police had just made a remark to him that made him relinquish the very intent look he wore

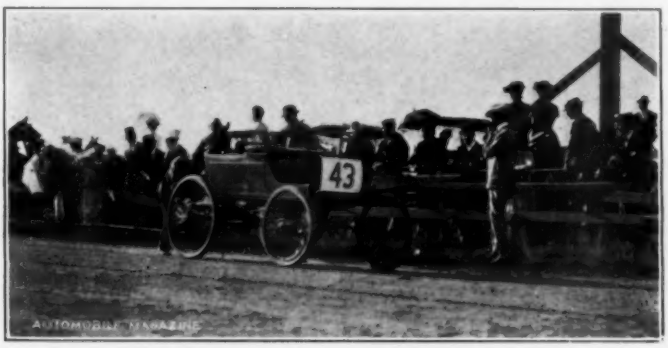
for most of the afternoon. He started in this race not for the purpose of filling it with competitors, as many thought, but to see if his De Dion-Bouton machine was as good or better than the others. It was proved conclusively that on this day Mr. Belmont's was the best vehicle, for the latter won by a handsome margin.

The 3-mile race for steam-propelled vehicles was run in heats; the first bringing out Colonel John Jacob Astor in a Toledo, Baron Pierre de Morogues in a Locomobile and J. McMillan Hamilton in a Locomobile. Paulding Fosdick in a Locomobile did not finish. It

Col. Astor Baron de Morogues J. McMillan Hamilton

was won by Mr. Hamilton, with Baron de Morogues second and Colonel Astor third. Time, 6 minutes 25½ seconds. This was a case of at least one man competing not with the idea of winning but merely to see how his machine would compare with others'. Colonel Astor drove his vehicle with this thought, but the onlookers did not understand the situation and made merry with his ability as a chauffeur If the same people had seen the Colonel several weeks later in the 500-mile endurance test skilfully and speedily driving his heavy 12 horse-power Gasmobile up and down the rough roads between New York and Albany, their conclusions would have been changed.

The second heat in this class was won by Henry Howard on a Howard machine. J. A. Mitchell on a Locomobile was second, and Paul H. Deming on a White vehicle was third. Time, 6 minutes 30 seconds. This race was devoid of feature, the Howard vehicle taking the lead and increasing it easily to the end. The picture entitled "The Howard Machine Being Pushed In" represents how this vehicle crossed the line in the final heat, and it also shows the unusual gear for this style of automobile. Attention is called to the large wheels both front and back, the rear ones being 3 feet 6 inches in diameter, this measurement being in great contrast with other steam vehicles in the race. Although the Howard machine crossed the finish line first in the final heat, the judges were forced to disqualify it on account of



The Howard Machine Being Pushed In

its not coming in under its own power. It had a great lead on all the others in the final heat, which was five miles in length, but on entering the last quarter mile the chain broke, and the occupants, finding what the trouble was, commenced a vigorous athlethic exercise by pushing their carriage at a run. Even though they were about a lap ahead of the second carriage when the chain broke, they only succeeded in passing the finish about seventy-five feet ahead of Mr. Hamilton, whose machine had quickly overtaken them. Mr. Hamilton was awarded the race. The photograph reveals the broken chain, both ends of which are trailing the ground. The distance between the crank shaft and the rear axle is unusually long, which accounts for the chain being long enough to drag both ends.

The first heat for gasoline vehicles developing not more than 12

horse-power brought out Frederick H. Benedict and F. Walsh both driving Gasmobiles, and Lieutenant H. L. Willoughby on an Autocar. It was won by Mr. Walsh, who covered the three miles in 6 minutes 6¼ seconds. He easily took the lead, and increased it as he chose. The second heat was won by C. Macey on a Gasmobile, with Mr. Stern, the son of Louis Stern, on a Panhard, second. George McFadden, of Boston polo fame, drove a Gasmobile but did not finish. Time, 6 minutes 45 seconds. The third heat was won by Clarence Gray Dinsmore on a Panhard in a walkover. The fourth heat was won by Rudolph Myer on a Gasmobile, with James L. Breese on a Panhard, second, and I. Townsend Burden, Jr., on an Autocar, third.

Lieut. Willoughby F. Walsh F. H. Benedict

Time, 6 minutes 17¼ seconds. The feature of this race was the easy way in which the Gasmobile disposed of the celebrated French machine. Some well-known authorities among the judges and onlookers were of the opinion that the winner's machine had considerable more than 12 horse-power. Mr. Breese did not drive his own vehicle, his chauffeur doing this. The owner sat on the inside seat and went through the usual gyrations, while taking turns, of the one who is generally given that position. The picture entitled "Rudolph Myer and James L. Breese in Trial Heat" shows Mr. Breese sitting down on the left seat of the inside vehicle ready for his part of the race.

The final heat was 5 miles and was won by Mr. Myer easily in 9 minutes 37 seconds. Mr. Dinsmore was second. Mr. Macey did not

finish. As was the case in the trial heat, the Gasmobile never was headed and won as it liked.

The next race was the first heat of the event of the day, it being a 5-mile race for gasoline vehicles developing more than 12 horse-power. The first to line up were Foxhall P. Keene in a Mors vehicle and David Wolfe Bishop in a 30 horse-power Panhard. There was considerable quiet speculation as to the outcome of the meeting between these two celebrated amateur automobilists both driving such world-renowned machines. Mr. Keene's can develop over 50 horse-power, it being the one he started in when taking part in the Paris-Berlin

Rudolph Myer and James L. Breese

race. Mr. Bishop's was also in that contest, it being driven by a Mr. Heath, who sold it to its present owner. Mr. Bishop changed the machine's appearance somewhat before bringing it to this country, elevating its motor and body five inches so that it would be better adapted to running on American roads. The picture entitled "David Wolfe Bishop Rounding a Turn" shows very conclusively that this vehicle could not hug the rail the way Mr. Keene's could. It was noticed that Mr. Bishop all through the race was nearer the outside of the track than even the middle of it, especially so in passing the grand stand, where on each circuit he caused a scampering on the part of the many who were near the stand on the track, who showed no desire to run the slightest risk of being within touching distance of

the powerful machine as it thundered past them. The description of this heat can be brief, Mr. Keene taking the lead and never being headed, he being one hundred yards ahead at the end of one lap and over one lap ahead at the finish. The time was 8 minutes 2 seconds.

This meeting between these two well known sportsmen was extra interesting on account of its being the first occasion of Mr. Keene's taking part in this country in an automobile race. This gentleman has previously been associated with almost every kind of amateur sport, he in his younger days being a good runner, base ball and tennis player. Those interested in amateur sports well remember that it was only half a dozen years ago when Mr. Keene suddenly loomed

Foxhall P. Keene in His Mors Ready On Track

up as a golf player by winning the amateur championship of this country. His favorite pastime is polo, which he still follows successfully, he being rated with several others as being in a class by themselves at this game. His polo team since he competed in these Newport antomobile races won the polo championship at Boston. Mr. Keene is a medium height slender type of man, weighing 152 pounds. In automobiling he displays the same slow movements that have characterized him in sports requiring much physical activity. When the occasion requires he has always put all necessary life into an exercise, but controlling it all, in a cool, confident manner. Should

he continue taking part in automobile events, he will undoubtedly make the same name in that sport as he has in others.

The second heat brought out William K. Vanderbilt, Jr., on a rated 40 horse-power Mercedes, which is without doubt "a thing of beauty," and William N. Murray, of Pittsburgh, who drove a 40 horse-power Winton exactly similar to Alexander Winton's own car, Albert C. Bostwick's and Captain Larz Andersen's. The picture entitled "W. K. Vanderbilt, Jr., and W. N. Murray Ready for Trial Heat" shows them as they waited while the starter adjusted their machines prior to firing the pistol. It will be noticed that Mr. Murray is still a few feet back of the line. Mr. Vanderbilt had given a clever exhibition of coming up fast and stopping within a few inches of the line, the dust at the rear showing that his machine had been in quick motion momentarily before.

David Wolfe Bishop Rounding a Turn at Speed

The start of this heat impressed many that there had been a misunderstanding on the part of Mr. Murray in getting ready for the pistol shot. He did not have his motor well speeded or else he did not dare put the clutch on as fast as Mr. Vanderbilt did. Whatever was the trouble it caused Mr. Murray to lose at least two hundred feet before he got his big vehicle under way properly. When the pistol was fired Mr. Vanderbilt shot forward just as though something had come up from behind and given him a tremendous push, in fact it was

even more than this—it looked as though a blow had been given. Almost simultaneously with the pistol Mr. Vanderbilt's vehicle was jumped or driven—both terms will do—eight or ten feet, and slowing down for about five feet more, it then shot ahead at a rate not far away from full speed. Mr. Murray's clutch was not even on and when his vehicle did begin to move Mr. Vanderbilt was one hundred feet away from the finish, which lead he increased to fully two hundred feet before Mr. Murray's machine commenced to show real life. After this the race was quite exciting, in fact it was the best of the day, for it did not take but about two laps to show that Mr. Vanderbilt had not gained anything worth speaking of after his opponent's machine was thoroughly under way. As there were ten circuits to be made, the crowd had the pleasure of being fully alive to the situation for eight circuits, after arriving at the conclusion that the machines were about equal in speed. Mr. Murray was at a fearful disadvantage in being forced to take the dust on account of being so close to his leader. No one who has not witnessed a contest of this kind on a dusty track can realize what it means. It is something that is beyond description, and unless an automobilist is thoroughly used to it and knows how to follow the vortex, as Henri Fournier says, it is impossible to see where one is going. Although the popular feeling seemed to be with Mr. Vanderbilt, this being quite natural on account of his being so well known at Newport, there were plenty of expressions of admiration for Mr. Murray, for in spite of the great handicap of dust, he prevented the winner from materially increasing his lead after both machines were in full speed. The winner's time was 7 minutes 43½ seconds. Mr. Murray was but five seconds behind, which computed in distance shows that he was 285 feet in the rear, he traveling about 57 feet per second.

The final heat of this race was by a long way the event of the afternoon. Even though there was quite a difference in the times of their respective heats everyone was on edge when Messrs. Vanderbilt and Keene lined up for the final trial. The picture entitled "W. K. Vanderbilt and Foxhall P. Keene Preparing for Final Heat" shows their machines on the starting line nearly ready for the pistol shot. Mr. Vanderbilt is adjusting his goggles and Mr. Keene is doing something with his levers. It will be noticed that Mr. Vanderbilt had the outside and that his adversary had the pole. If there were any significance to this such as either one having an advantage, it would be in favor of Mr. Keene, but as it turned out the big start which Mr.

Vanderbilt obtained enabled him to take the pole immediately. When the machines were sent away Mr. Vanderbilt took the lead and was fully 100 feet ahead when taking the first turn. The positions did not change after that, Mr. Keene never being able to overcome the advantage. Mr. Vanderbilt won easily in 7 minutes 36¼ seconds, which shows an average of about 1 minute, 31 seconds for each mile. His best mile was done in 1 minute 28 seconds.

It was rather amusing to notice the feeling of the majority of the onlookers, they showing unmistakably whom they hoped would win. Each time Mr. Vanderbilt rushed past the stands there were any quantity of opinions expressed concerning his superiority as a chauf-

Wm. K. Vanderbilt, Jr., and Wm. N. Murray Ready for Trial Heat

feur over Mr. Keene. This popularity is presumably due to Mr. Vanderbilt's long conspicuous life in Newport. For half the race he was compelled to take Mr. Vanderbilt's dust in the very way that Mr. Murray was forced to, and after the race he said his eyes were so blinded that he could scarcely see for several minutes. He acknowledged that on this day he was hardly a match for Mr. Vanderbilt.

The last race of the afternoon was a so-called 10-mile championship for all classes. It was won by Mr. Vanderbilt, in his Mercedes, who simply let his machine out to about the limit he showed in his previous races and lapped competitors in a most unconcerned way. Several times when he was on the point of passing a machine he was

forced to take dust in the same fashion that he had given it to others, but on account of the great speed of his machine he did not have to submit to this handicap long enough to interfere with very fast traveling. He won this race in 15 minutes 23½ seconds, second place being taken by Kenneth A. Skinner, on the DeDion-Bouton tricycle, which he drove to such signal victory in the first race. Rudolph Myer, on the celebrated Gasmobile which had taken him in first in several previous races, was third. Mr. Skinner, although no match for Mr. Vanderbilt, showed surprising speed around that track, he maintaining a position of leaning his body toward the pole for the whole 16 minutes, which showed more than average determination and fortitude.

On account of Mr. Vanderbilt's automobile reputation given him by the immense amount of newspaper notoriety he has attracted, it is not amiss to describe his doings when on a machine. He is without doubt an unusually competent driver so far as concerns getting speed and handling his machine easily and quickly. All kinds of stories have been published about him regarding the risks he has run and the utter disdain in which he holds the rights of other people when on the public highway. He is a nervous, quick-acting young man, but gives the impression that on nearly every occasion he knows what he is about. One scene alone which was witnessed by the writer shows conclusively how thoroughly at home he is on his powerful racer. This machine was resting under the tent that he had provided for the entertainment of his friends, and when the time came to take the inappropriate object away from its close association with punch bowls, champagne, lemonade, etc., the owner entered the canvas covering, quickly jumped on the driver's seat, gave a couple of quick instructions to his chauffeur, who immediately went to the front and set the motor going. Then Mr. Vanderbilt took charge of the wheel and levers and moved the apparently cumbersome vehicle backward and forward in quick succession, edging it toward a very small opening, made so by stakes and ropes which held the tent, and backed it out as expertly as anyone could imagine it to be done. Once free from the tent, he backed it at greater speed over some thick fence rails which were on the ground that in turn momentarily sent the rear part of the machine in the air long enough to cause the hind wheels to race with a deafening racket. When on the track, he veered his machine around still backing at speed and then sent it forward in a confident way that could not fail to impress anyone.

Just what his abilities are as compared with, for instance, Albert

C. Bostwick and Messrs. Keene, Bishop and Murray, when all would be on a course broad enough, smooth enough and long enough to enable their machines to be let out to their fullest extent, remains to be seen. The track at Newport was a ridiculous place to have automobile races for high-powered cars. It was all right for small machines, but for speedy and heavy vehicles was most unsatisfactory. It would not be fair to compare Mr. Vanderbilt's racing abilities with such renowned foreign drivers as Fournier, Charron, Girardot or even Alexander Winton of America, who although not having had

Mr. Vanderbilt and Mr. Keene Ready for Final Heat

nearly so much experience in racing as the Frenchmen is enough acquainted with this branch of automobiling to probably outclass, if the machines are equal, any driver of Mr. Vanderbilt's set.

To show how foolish it would be to form convincing opinions from the Newport races as to the relative merits of Messrs. Vanderbilt, Keene, Murray and Bishop it may be said that none of these men kept their full power on at any one time for over a dozen seconds. Only on coming up the home stretch which is practically level or a trifle up hill were things opened up wide. When the turn was reached Mr. Vanderbilt would cut off a cylinder and not put it on again until

the home stretch was again met. The back stretch being a little down hill, gave all machines such momentum that in some cases they had to be braked before the turn could be entered with safety. Mr. Vanderbilt's machine held the pole better than any, probably mostly on account of the way his attendant was trained when taking curves. This man just before a turn was reached would suspend himself outward from the machine with his feet on the step and his hands clinging to two straps fastened to the fore and aft part of the machine respectively. His body in this way was inclined at an angle of about 30 degrees and his head was about 4 feet away from the seat. This counterbalance enabled the machine to be sent a little swifter around the curves than it otherwise could.

One of the neatest air cooled motors we have seen is the one built by the Dieble-Cox Manufacturing Company, of Philadelphia. In appearance, it reminds one of the Knox, at first glance, but further examination shows the difference. Instead of pins fastened into the cylinder, there are rings with radiating arms, which are shrunk on the cylinder casting. These present more radiating surface than we have ever seen in a similar space and the results in practice seem to indicate beyond doubt that it is effective. Altogether, it's a neat little runabout and is making friends among those who want a light, low-priced runabout.

Perhaps most of us are too prone to talk about our mishaps and overlook the many pleasant miles where nothing whatever occurred to mar our ride. Mr. Walter Creber writes to the *Motor Car Journal* that he has driven a Glasgow built car about 3,000 miles without any trouble since the first week when he was learning to run it. Few can present such a record, and if tires are included, this part can be attributed to good fortune as much as to the make of tires or the management of the car.

More About Great Speed

THE terrific motor car speed that has been developed this summer is still exciting comment in Europe. In speaking of a run Girardot, the noted French automobilist, made between Paris and LeTreport, 144 miles in a little over two hours, the *London Telegraph* says that some of the distance must have been traveled at the rate of over 80 miles an hour. Other remarks continue as follows :

Seeing that such speeds as those stated are regarded as remarkable if accomplished by express trains, it is not surprising that the public mind is a little disturbed at the notion of such terrible vehicles as 90 miles an hour motor cars traveling on the highway. Girardot observed that he "so terrified the population along the roads" that he could not get up his full speed. Sympathy with M. Girardot is eclipsed by regard for the rustic population in consternation at his terrific advent. English cars have a top speed of 83 miles an hour at the normal rate of the engine, but by accelerating its revolutions about one-third may be added, so that a pace of 100 miles an hour is a possibility. Such a speed is not practicable on English roads, as there is scarcely a stretch of highway on which it could be attained, for as soon as a big pace is developed a curve or other check requires it to be reduced. For this reason the English competitors in the Paris-Bordeaux race were at a disadvantage, as they had not the practicing ground over which to put the finishing touches to their training.

It is the league upon league of wide, smooth, and, above all, straight highway which has fostered motor car racing in France. And this furnishes also the reason why speeds have been tolerated there which would have caused a great outcry in England. A well known motorist, who has driven racing cars in England and France, said in conversation that these roads curiously affected the sensation of speed. A pace of 35 to 40 miles an hour on an English highway seemed faster than 50 or 60 on a national French route. "You can see right ahead to the horizon nearly all the time," he said, "and the result is that not only do you feel safe at such great speed, but the people can see you coming, and they do not, therefore, feel endangered. It puts

fast motoring on quite a different footing to that which it occupies in England."

To the uninitiated it seems amazing that a car can be controlled at 60 miles an hour. Of course, great coolness and nerve is necessary, but our informant said that it was remarkable how steadily a car ran at a high speed. If it were not so, the pace would be impossible. A slight swerve would mean leaving the road and tearing through the landscape at the side in a very discomfiting manner until the almost inevitable upset happened. No high speed motorist would dare to attempt to avoid the minor fauna of the highway, and many drivers might say that they had covered 50 miles, a dozen hens and a couple of dogs in an hour. Small obstructions, such as ruts, gullies and the like, the tires and springs of the car have to absorb as best they can. The car scarcely feels them at such a speed. It "takes off" from the top of the slope over a bridge as if it were a flying machine.

It will be asked, seeing that such speeds are undoubtedly dangerous, and cannot be permitted in England unless the motorists construct the racing track which they have mooted, what is the use of them? They are serving a useful purpose, however, and the position is very similar to that of the bicycle. Cyclists indulged in illegal road races until they became a nuisance and were stopped; but it is very largely owing to them that the ordinary rider of to-day is mounted on so light and efficient a machine. In the same way the struggle to produce the fastest motor car is adding rapidly to the knowledge necessary for the turning out of a reliable and speedy—but not too speedy—car for ordinary use.

In speaking of the speed of his car, Mr. Edge said: "My own car is geared to do 103 miles an hour, at 1,000 revolutions per minute, but I can't get anything more than 80 miles an hour out of her because she isn't heavy enough, and the wheels simply slip on the ground. With a car weighing 2,000 pounds you can cover 40 miles an hour comfortably, but to touch 60 miles you want a car nearly twice as heavy to enable the wheels to keep on the ground. The difference between traveling at 50 and 60 miles an hour is terrible. At 50 miles I find I can travel quite comfortably. But the force of the wind when you're going at 65 is almost unbearable."

Effects of Tires Bursting at Speed

SOME interesting facts follow relating to the bursting of a pneumatic tire when running at high speed. It is needless to say that there is always danger when such an accident happens but it is more so when the car is highly powered and has unusually large tires. On some vehicles one or two tires may burst and cause no commotion other than to produce hard riding. Charles Jarrott writes his opinion on this question to the *Motor News*, he having had some experience with these mishaps when competing in the Paris-Berlin race.

"I found that I suffered no inconvenience at all in regard to steering, etc., by either the front tire or the back tire going, beyond the car sliding about the road, which slipping, however, did not reach the dangerous point, or at any rate did not seem to me to be dangerous.

"The fact is more noticeable when the front tire goes than when the back tire goes. Six kilometers from Magdburg on the last day of the Paris-Berlin race my front tire burst when I was at top speed, travelling very fast, and certainly I slid about a good bit, but with no serious results.

"It would be very different, however, if this had happened when we were turning a corner fast—that is, if the weight of the car had been pressing against the tires sideways, as there would be no control whatever over the car, and it would in all probability leave the road altogether. In fact this is one of the dangers of taking corners at a very high speed, which, however, one has to do if there is any hope of being anywhere in front at the finish.

"The fact of a back tire bursting on a corner would not be so bad as a front tire, as, of course, the front wheels are the steering wheels.

"I think I have made it sufficiently clear that it is only on corners that a deflated tire causes one any serious inconvenience in steering.

"In regard to the Magdburg incident which I have already mentioned, I may say that I had the clips tightened, and I drove 8 or 9 kilometers on the rim at a speed I should calculate of about 30 or 35 miles an hour. This, of course, ruined the cover and tube, but, on the other hand, it enabled me to obtain a new cover and tube and change the same in the Control at Madgburg, which was an advantage.

"The effect of a tire bursting on a racing tricycle on the track when traveling at a high speed is very much the same. So long as one is going down the straights it does not matter so much whether the front or back tire is punctured. If, however, one of the back tires goes at any of the corners, it is, to say the least of it, inconvenient, but if from any cause the front tires burst, it is highly dangerous, as one has absolutely no control whatever over the machine. This has happened to me three or four times on the track, and I must say that the experience is distinctly unpleasant."

New Move in Gordon-Bennett Race

TO prevent entries being made for the Gordon-Bennett Cup by irresponsible persons or those who seek only the notoriety of having entered with no intent to eventually compete in the contest itself, the Automobile Club of Great Britain and Ireland proposes the following regulations for those who desire to enter from Great Britain :

Each owner entering a vehicle shall deposit with the club $200 on or before December 15 in order to enable the club to pay the entry fees to the A. C. F. before December 31, as required by the rules affecting the race.

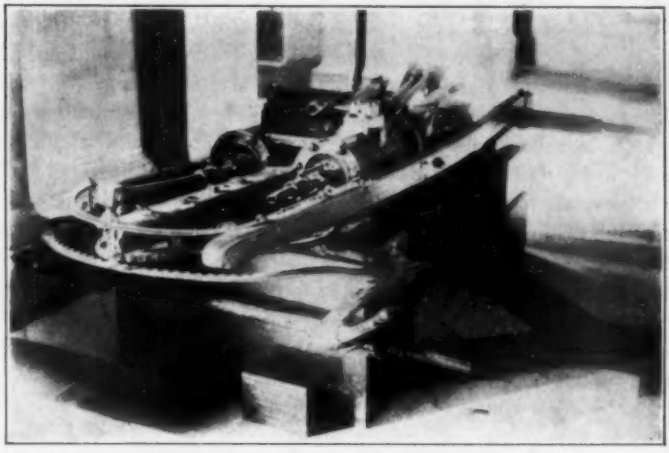
The owner shall at the same time lodge with the club $200 toward the proportion of the cost of the race which has to be paid by the A. C. G. B. I.

The $200 referred to will be returned to the owner in the event of a qualified vehicle, accepted by the Race Committee, starting in the race, and securing the repayment by the A. C. F. of the entry fee or fees paid to that club by the A. C. G. B. I., but not otherwise.

The $200 referred to will be returned to the owner if the vehicle is in Paris running on the road at least one month before the race, and provided it completes the race at an average speed within 30 per cent. of the average speed of the fastest car in a race over the course on the day of the Gordon-Bennett race, but not otherwise.

Notes From the Glasgow Exhibition

THE Exhibition is not given wholly over to modernism. Antiquities receive a good deal of attention, one section of the art galleries being wholly allotted to their use. On the ground floor of this building, hidden away between two pillars, there is a piece of mechanism which might well have been given a more prominent situation. It is at once a relic of one of the first effective locomotives employed in Scotland, and a memento of the hard battle



Engine of John Scott Russell's Steam Carriage of 1835

which steam power had to fight about seventy years ago before it became a recognized mechanical force. We are a conservative people and any new thing, however beneficial, has to fight its way, not only against the active hostility of vested interests, but, what is not infrequently found more difficult to overcome, the inert passive resistance of use and want.

In the year 1834, John Scott Russell, an engineer, who is, however, better known by his works on naval architecture, instituted a service of steam road carriages between Glasgow and Paisley, a distance of about seven miles. The shortest time recorded during the brief existence of the service was 32 minutes, the longest just within

the hour—not by any means an exhilarating pace, but it appears to have satisfied the public of that time, for, although the carriages were only seated for twenty-six passengers, on one of the trips as many as thirty-nine were carried. One month covered the active service existence of the company for, instituted on the 2d of July, it came to an untimely end on the 29th of the same month. The road trustees, who, of course, objected on principle to new vehicles of any kind, considered it their duty to wreck the undertaking, and, with that object in view, they covered the road the greater part of its length with fresh metal (broken stone), which at some places was of considerable depth. Russell appears to have been a better engineer than boilermaker or wheelwright, for on the last date given at the Halfway House, one of the wheels gave way, the carriage turned on its side with the result that the boiler burst, by which four people were killed and a considerable number injured. The accident caused widespread consternation, the road trustees receiving general condemnation, while the local newspapers indulged in language which a modern journalist would find it difficult to surpass. But people having business in Paisley afterwards found that walking exercise agreed with their health better than riding in a steam carriage and the undertaking therefore collapsed.

An examination of this engine forces one to conclude that during the intervening period the progress of the locomotive in essential parts has been inconsiderable. It is true that the cylinders are ill-proportioned, about 9 inches diameter by 21 inches stroke; that the old "gaby" or horizontal motion (V-hook) is of the things that were, and nowadays piston rods move between the guides on slides—not wheels, as on this engine; that the eccentrics are only single, and the slide valves are innocent of lap; but they are all there, and the improvements effected since have been only changes of detail. This engine, notwithstanding all its crudity and imperfection, may be said to embody every essential of the modern locomotive. There is nothing fragile about the machine. The cylinders are strong enough in construction for a steamboat, while the cranks are about 6 inches thick at the bends. For the engine to have come through its boiler-bursting experience with so little apparent damage was highly creditable to its builder.

ALEXANDER F. SINCLAIR.

Over-Driving

OVER-DRIVING a motor is a practice that many automobilists engage in persistently, and the following remarks on the subject, which appeared in the *Autocar*, are descriptive of its bad results :

"Over-driving is, unquestionably, a very common practice among automobilists. We do not refer to the legal limit, but by over-driving we simply mean keeping the motor up to its fullest work practically the whole of the time. Motor cyclists are perhaps the greatest sinners in this respect, but it applies, more or less, to a very considerable majority of drivers. During the whole period in which they are on their machines they run the motor just about as hard as it can be driven. They may be careful drivers, so far as consideration of traffic is concerned, and may have every regard for the comfort and convenience of other users of the road, but they never seem to consider their engines, and whether the road be rough or smooth, keep driving just about as fast as a motor can propel them, so long as there is nothing ahead. Now, this is all very well if one is in a hurry, but there are many owners of cars who are extremely anxious that they shall last as long as possible, and who regard the cost of the pastime as an item which cannot be ignored. We are convinced that in a very large number of cases the engines and cars would last much longer if they were not driven quite so hard. The difference in speed is not so very great, but the wear and tear are tremendously reduced by a little restraint. By slowing over bad bits of road, the strain upon the wheels, axles, springs and framework is greatly reduced, and the engine and car saved from a large amount of snatching and straining. Therefore, by running the engine at less speed, its life is unquestionably prolonged. On the top of all this, it is well to remember that the comfort of the occupants of the car is greatly enhanced by what we may call driving softly, as every automobilist knows that serious vibration always comes from the road, and that, within certain limits, it may be said that the greater the speed the more severe is the shake and the wear and tear to the engine. From observations we have made, we believe over-driving and reasonable driving are largely responsible for the vastly different results attained by different users from the same make of machine.

Incorrect Handling of Motors

THE cause of many troubles motor vehicle owners have with their vehicles is the unreasonable style of starting and stopping to which so many of the owners are given. The sudden jerk when starting a steam machine, caused by opening the valve too far, can only have bad results, and must eventually throw all of the finer engine parts out of gear. No locomotive engineer would take the liberties with the strongest engine a motor driver takes with an instrument whose parts are very far from being over-strong. Often in the case of a gasoline vehicle instead of slowly advancing until the vehicle has got up sufficient power, many drivers put the speed lever at once at the second or third speed, and risk not only being thrown out of the vehicle, but also wrecking the motor which they have undertaken to handle. A motor must be treated like a sensitive being who requires attention, and not like a heap of steel parts which cannot be broken or damaged. All expert motoists know their engines, and it is this information which enables them to operate motors successfully.

Statistics of Steam Trucking

THE annual cost of a steam motor truck, the initial cost of which may be about $3,500, is given as follows by a firm of British manufacturers, the truck being capable of carrying four tons a distance of fifty miles each day for 312 days per annum, that is, 62,400 net ton miles per annum: Fuel, 6.15 pounds of coke per vehicle mile (coke at $2.50 per ton), $107.08; 28 pounds of coke a day for raising steam, $9.75; wood for lighting fire, $3.75; total for fuel, $120.58. Water (4.9 gallons per vehicle mile at 25 cents per 1,000 gallons), $19.10; wages of driver at $7.75 a week and lad at $2.50 a week, $585; repairs, including material and labor, $260; lubricating oil and waste, $60. Total cost of annual up-keep, $1,044.68, or about four-fifths of a cent. per net ton mile. The manufacturers suggest that to ascertain the relative cost of animal power, the above estimate should be compared with the cost of three trucks, six horses, three drivers and three boys.

New French Speed Law

THE important features of the new law in France regarding automobiles being raced on the public highways are as follows: Automobiles weighing more than seven hundred pounds must be furnished with apparatus capable of reversing the machine. Those of a higher speed than thirty kilometers (19 miles) an hour must have special licenses, and their drivers must pass a more rigid examination than heretofore. All automobiles must carry large numbers prominently displayed back and front.

Contrary to expectations, races are not forbidden, the law requiring, however, the consent of two-thirds of the population of every town and hamlet traversed. Such consent must reach the Ministry of the Interior through the prefects of the departments a fortnight prior to a race. Then the Ministry will issue a permit.

A speed higher than thirty kilometers will be allowed only in the open country; elsewhere it must not exceed twenty (12½ miles).

All connected with the automobile industry, together with the thousands of amateurs of the sport, feel satisfied on account of the comparatively easy terms of the law, but as the Marquis De Dion is quoted as saying—

"Nothing else was expected, since no French Minister would be likely to kill the goose that lays the golden egg."

The "Tractobile" presents rather a novel appearance and should receive attention from those who desire to convert their present carriages into motor vehicles. There has been and probably is yet, a demand for something of this kind and this device seems to meet the requirements in every way. The boilers are unique and are said to be very satisfactory.

We have received a copy of the Carlisle (Pa.) *Evening Volunteer*, which contains an account of the new automobile industry recently established at that place, by the Pennsylvania Steam Vehicle Company.

Automobile Accidents vs. Horse

MR. M. CAPPELLEN, the managing director of the Sports Motor Car Company, relates the following story which was told him by one of the leading members of the *Société d' Elevage:* "While out driving in his autocar, Prince Albert of Belgium, heir presumptive to the throne, met a country vehicle on the road, the horse of which took fright, and the result was an upset for the Prince and his party, the car falling into a ditch. As is often the case with automobilists, whether royal or otherwise, they soon discovered that no one was hurt at all, and, with the help of a few countrymen, the car was lifted out of the ditch, and was quickly on the road again and running well. The only inconvenience caused by the spill was a little delay. As soon as the accident became known, a number of anti-automobilists began to condemn the motor vehicles as being unsafe, but the laughable part of the story is the way in which the autocarists were able to completely turn the tables. Some two years ago the Prince, while riding on horseback, was thrown over and sustained serious injury, while the horse's leg was broken. In consequence, the Prince was obliged to keep to the sick room for some eight or nine months." The story of this mishap was related for the benefit of those who exaggerated the dangers attaching to automobilism, and, as might be supposed, the royalists scored heavily.

The question of operating any kind of a motor carriage is, after all, mostly one of remaining cool headed at all times, so as to avoid doing the wrong thing in an emergency. This is easy to say, but sometimes hard to accomplish and only actual experience can give any operator the practice and confidence that are necessary. When a locomotive engineer sees anything wrong ahead one hand instinctively applies the brake while the other closes the throttle. He hardly knows he is doing it, yet there is no hesitation—the instinct or sub-conscious mind gets in its fine work before he knows it. When the driver of an automobile reaches this stage he may safely be called an expert—yet it only means patience and practice for almost any person to do this. There may be exceptions just as are exemplified in the cases of those who never learn to swim or to ride a wheel, but these are rare and their infrequency should serve to inspire confidence in the average automobile user.

Pleasures of Hot Weather Automobiling

THE great heat some weeks ago brought permanently before the public one feature of the motor vehicle not fully appreciated by the public at large, viz., its ability to give most satisfactory service in both extreme hot and extreme cold weather, when horses suffer from the temperature and when horse driving is no longer a pleasure

A 12 Per Cent. Grade

because of the limitations of the animal. In hot weather a trip through the country on a high speed motor vehicle creates a cooling breeze or a rushing wind at will, while carrying the driver past the most pleasant scenery at a rapid speed and without exertion. Further, there is no worry or sympathy expended on the tired and perspiring horse, for the motor works as well when hot as when cold and returns from a long run with as much vigor as when starting out. Only those

who have tried the delights of motoring in a first class vehicle on a hot day can appreciate the pleasure of gliding through the country fast or slow at will, varying the speed by an imperceptible twist of the wrist. The modern motor vehicle produces an exhilaration surpassing that of coasting on a sled or cycle, much superior to yachting or coaching, and in some cases a near approach to flying.

Not only is the motor vehicle appreciated in hot weather, but it opens up an entirely new field of pleasure in the winter. With ample power it can traverse deep snow, and the hard frozen roads make the best of surfaces. The machinery of most of them is unaffected by the weather, while the passengers may be made comfortable at any temperature by enclosing the carriage or by the use of warm lap robes and wind proof aprons, together with heated foot mats, sending an agreeable glow upward through the wraps and the entire body.

Danger of Accident

THE danger of meeting with a terrible accident while traveling fast is well shown in a letter that the celebrated English autoist, S. F. Edge, writes to the *Motor Car Journal.* Mr. Edge's description of the risks met with in that part of a race where one competitor wishes to pass another one, the leader leaving a cloud of dust that renders it almost impossible to keep a proper course, and makes it absolutely impossible to look out for rough places in the road just at that critical time. The letter is more or less explanatory of why he was forced to retire in the Paris-Berlin race. Its interesting part is as follows :

" The car throughout went absolutely perfectly, and prior to my first puncture I drew up from twenty-fifth position, at which I started, to ninth in the first 78 kilometers. After this, however, my Continental tires punctured no less than seven times, but my final accident, which put me out of the race, was caused when passing another competitor. Being unable to see for the enormous cloud of dust, I struck the arched curve of the road over a small bridge while traveling at about 70 miles an hour, the result being that the car leaped into the air and struck the ground again with such violence as to break my back carriage spring. Until a new one was made, which took two days, it was impossible to continue."

Benefits of Road Racing

THE result of this year's two big automobile races in Europe has been far reaching, not only because the publicity given them has served to acquaint the general mass of people still more with automobiling, but also because many immediate and prospective buyers were developed. Those who are so opposed to automobile racing on account of, as they say, the performance bringing forth no practical good have had little argument lately in support of their claim for even the daily press has now recognized the merit of holding practical speed trials. The following editorial from the *Sun* well describes the benefits to the industry, derived from road racing :

If we may judge by the success that attended the great automobile race from Paris to Berlin, the motor vehicles have before them an extremely interesting career, aside from their use as everyday conveyances. The rate of speed attained by the vehicles which took part in the contest referred to, considering the setbacks they sustained because of dust obstructing the view of the chauffeurs, the punctured tires and the interference of spectators, was truly wonderful, the average being about 40 miles an hour for the entire distance.

Now, what do such contests amount to? Some will say that they have no value, except that of determining who owns the best machine. But this theory is inadequate. Races like the one just ended are instructive for very many reasons. First, they serve to acquaint the public with the possibilities of a vehicle which has been developed with a rapidity never equaled in the history of any other mechanical contrivance of so great utility. They illustrate the ease, sureness and safety with which motor carriages may be run, even at terrific speed. They indicate the interest which people generally possess in invention and mechanical progress. But, above all, such thorough and exhaustive tests prove convincingly the superiority of one make of automobile over another, at least in certain particulars. An automobile in order to run at a high rate of speed for a long distance, must be of sound construction. The excessive strain of road racing discloses the weak parts of an automobile, just as cycle races and yacht races reveal the imperfections of bicycles and yachts.

In France, where the automobile's evolution has been almost phe-

nomenal, racing from time to time has been relied upon to give the manufacturers an intelligent idea of the progress made by their competitors, and the result has been apparent in the succession of new and perfected devices and appliances which have been produced there. Undoubtedly, the greatest advancement has been in the motive power of the carriages. About six years ago the French automobiles built for racing were of only about 5 or 6 horse-power, whereas they are now constructed with engines of 30 and 40 horse-power, and, in a few instances, nearly twice this power has been developed.

With the great capacity for speed, however, has come an increase in the machine's weight, and consequently, additional strain upon the running gear ; and from the evil effects of this strain the rubber tires seem to suffer most. So great is the side strain put upon the tires, especially when turning corners, that mechanical experts have expressed the belief that, so far as concerns the weight and power of the big racers, the limit has already been reached. And this statement is not surprising in view of the recent performance of automobilist Fournier, who drove his vehicle 337½ miles at an average speed of 53¼ miles an hour.

In America automobile racing is in its infancy, although the speed qualities and all-around excellence of our machines have been proven frequently. Yet, notwithstanding our comparative inexperience, the racing spirit exists here in the most unmistakable form and speed exhibitions are being planned constantly. It may be some time before the American chauffeurs will embrace this feature of automobiling as earnestly and enthusiastically as have the French ; but it may be set down as certain that if contests between motor carriages are as important in determining the respective merits of the vehicles as it is claimed they are, Uncle Sam's machines will make the dust fly in the next few years.

The Joseph Dixon Crucible Company have issued a little folder giving many automobilists' experience with their graphite as a lubricant. These seem to cover about all types of carriages and the comment in every case is very favorable. Knowing its value in other lines, it is difficult to see why it would not be equally good for motor carriages.

Automobile Club Directory

Under this heading we shall keep a record of the motor vehicle clubs both of this and other countries, and we hope to have the co-operation of club officers in making it accurate and complete.

*Corresponding clubs of the Automobile Club of America are designated thus *.*

Automobile Club of America, S. M. Butler, Secretary, 95 Liberty St., New York; representative on International Racing Board, Clarence Gray Dinsmore; Substitute, John H. Flagler.

Automobile Club of New Jersey, Secretary, Dr. H. Power, Montclair, N. J.

Automobile Club of Baltimore, W. W. Donaldson, Secretary, 872 Park Avenue, Baltimore.

*Automobile Club of Columbus, O., C. M. Chittenden, Secretary, Broad Street.

Chicago Automobile Club, Secretary, H. M. Brinkerhoff, Monadnock Block, Chicago.

Indiana Automobile Club, Indianapolis, Ind. Secretary, August Kabich.

Long Island Automobile Club, Secretary, Charles W. Spurr, Jr., 1190 Fulton Street, Brooklyn.

Automobile Club of New England, Secretary, Geo. E. McQuesten, Brookline, Mass.

*Cleveland Automobile Club, L. H. Rogers, 357 Amesbury Avenue, Secretary, Cleveland, O.

*North Jersey Automobile Club, E. T. Bell. Jr., Secretary, Paterson, N. J.

*Automobile Club of Rochester, Frederick Sager, Secretary, 66 East Avenue, Rochester, N. Y.

Massachusetts Automobile Club, President, J. Ransome Bridge; Treasurer, Conrad J. Rueter; Secretary, L. E. Knott, 16 Ashburton Place, Boston, Mass.

Pennsylvania Automobile Club, Secretary, Henry J. Johnson, 138 No. Broad Street, Philadelphia.

Automobile Club of California, Secretary, R. R. l'Hommedieu, 415 Montgomery St., San Francisco.

*Philadelphia Automobile Club, Frank C. Lewin, Secretary, 250 No. Broad Street, Philadelphia, Pa.

Automobile Club of Bridgeport, Secretary, Frank W. Bolande, 208 Barnum Avenue, Bridgeport, Conn.

Rhode Island Automobile Club, Secretary, Frederick C. Fletcher, P. O. Box 1314, Providence, R. I.

Princeton University Automobile Club, Princeton, N. J. President, P. Adamson; Secretary, Charles H. Dugro.

San Francisco Automobile Club, B. L. Ryder, Secretary, San Francisco, Cal.

Columbia College Automobile Club, Lewis Iselin, Secretary, Columbia College, New York, N. Y.

*Buffalo Automobile Club, Secretary, Ellicott Evans, The Lenox, Buffalo, N. Y.

Worcester Automobile Club, Worcester, Mass., President, J. W. Bigelow; Vice-President, Edwin Brown; Marshal, W. J. H. Nourse; Treasurer, B. A. Robinson; Secretary, H. E. Shiland.

Automobile Club of Syracuse, Syracuse, N. Y.; Secretary Frederick H. Elliott, 515 S. A. & K. Building, Syracuse.

AUSTRIA.

Budapest—Magyar Automobil Club, 31 Musem Korül.

Innesbruck—Tiroles Automobil Club, Rudolph-Strasse 3.

Prague—Prager Automobil Club.

BELGIUM.

Antwerp—Automobile Club Anversoir, 34 r. Longue de l'Hopital; President, Baron de Bieberstein.

*Brussels—Automobile Club de Belgique, 14 Pl. Royale ; Moto-Club de Belgique, 152 Boul. du Nord ; Touring Club de Belgique, 11 r. des Vauniers.

Charleroi—Automobile Club de Charleroi, Hotel de Esperance.

Ghent—Automobile Club de Flandres.

Liege—Automobile Club, Liegeois, 2 r. Hamal.

FRANCE.

Amiens—Automobile Club de Picardie, 36 r. de La Hotoie.

Avignon — Automobile Club de Avignon.

Bordeaux—L'Automobile Bordelais.

Dijon—Automobile Club, Bourguignors Cafe Americanie.

Lyon—Bicycle et Automobile Club de Lyon ; Motor Club de Lyon, 3 pl. de la Bouise.

Marseilles—Automobile Club de Marseilles, 61 r. St. Fereol.

Nance—Automobile Club, Lorrain, Thiers pl.

Nice—Automobile Velo, Club de Nice, 16 r. Chauvain.

*Paris—Automobile Club of France, 6 pl. de la Concorde ; Motr-Club de France ; Touring Club de France, 5 r. Coq-Héron.

Pau—Automobile Club, Bearnais Ave. de la Pau, President, M. W. K. Thorn.

Périgueux—Veloce Club, Perigourdin, Hôtel de Commerce.

Toulouse—Automobile Club, Toulousain Café Riche, pl. St. Etienne Société des Chaffeurs du Midi, 25 r. Roquelaine. President, M. Gay.

GERMANY.

Aachen (Aix la Chapelle)—Westdeutscher Automobile Club, Hotel Grand Monarque.

Berlin — Mitteleuropaischer Motor Wagen Verein, I. Universitatstrasse, Herr A. Klose ; Deutscher Automobil Club, Liusenstrasse, 43-44.

*Deutscher Automobil Club, Liusenstrasse, 43-44. President, S. D. Herzog, Victor von Ratilin.

Dresden—Radfahrer-und Automobilisten Vereinigung; Dresdener Touren Club.

Eisenach—Mitteldeutscher Automobil Club ; Motorfahrer Club, Eisenach.

Frankfort am Main — Frankfurter Automobil Club, Restaurant Kaiserhof.

Munich—Bayer. Automobil Club, 33 Findling Strasse.

Stettin—Erster Stettiner Bicycle und Automobil Club.

Strassburg—Strassburger Automobil Club.

Stuttgart—Suddeutscher Automobil Club ; Wurtembergischer Motor Wagen Verein.

GREAT BRITAIN.

Birmingham — Motor and Cycle Trades Club, Corporation street.

Edinburgh — Scottish Automobile Club.

Liverpool—Liverpool Self-propelled Traffic Association, Colquitt street. Secretary, E. Shrapnell Smith.

*London—Automobile Club of Great Britain and Ireland, 4 Whitehall Court, S. W. Hon. Secretary, C. Harrington Moore.

Nottingham Automobile Club, Secretary, A. R. Atkey, Nottingham, England.

HOLLAND.

Nimegue—Nederlandsche Automobile Club.

ITALY.

Milan—Club Automobilisti Italiani 6 via Guilini.

*Turin — Automobile Club d'Italie Via Vittorio Amedeo II, 26.

RUSSIA.

Moscow — Moskauer Automobile Club, Petrowka, Hauschnow.

St. Petersburg — Automobile Club de Russe, President, M. Delorme.

SPAIN.

Madrid—Automobile Club de Madrid.

SWITZERLAND.

*Geneva — Automobile Club de Suisse, 9 boul. de Theatre.